BUSINESS WEEK

Production Cutbacks



Ward M. Canaday: Painless conversion from Jeepsters to Jeeps (page 32)

JAN. 13, 1951

120-



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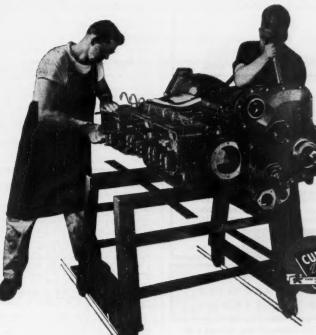
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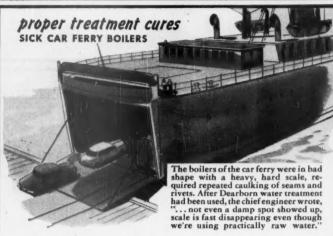
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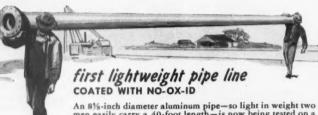
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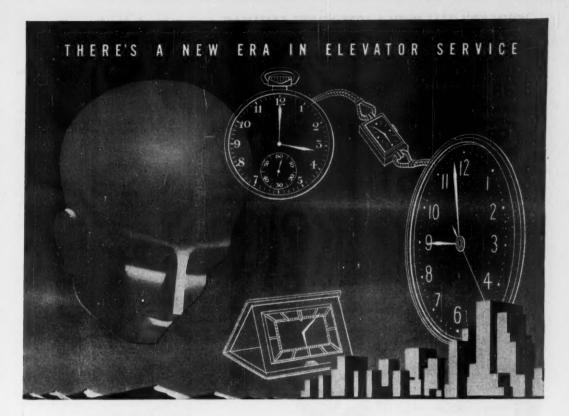
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Highlights In This Issue

Who Tells Who

· The lines of authority in Washington's emergency agencies have all been revamped-and the official charts aren't too clear. Here's a chart that is. P. 22

Illusory Profits

· Profits on a defense contract are just so much paper until it's all over and you've bargained it out again with the government. An even broader renegotiation law is in the works.

Birth of a Labor Leader

• How ILGWU turns a pretty girl into a union organizer. In pictures. P. 96

The Bulls Have It

· Just about everyone on Wall St. expects the market to go higher. Only question: Will there be a shakeout P. 82

New Trick for Old Dogs

· Everybody cuts metal. But an Air Force research project shows that until now, no one has done it right. P. 64

End of Rail Express?

• The Express Co.'s long-term contract with the railroads will run out soon. It may not be renewed.

Who's Expanding

· Scheduled steel expansion already far exceeds the 9-million tons announced last fall. What each company doing.

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Poor hippo... dreaming of romantic leads!

But, alas, with her equipment, Clarisse will never make them.

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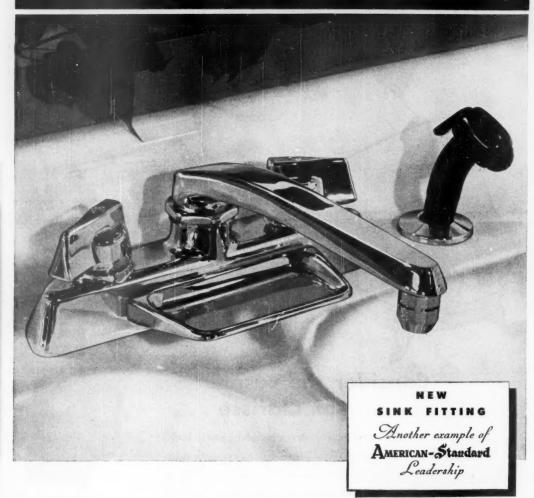
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BUSINESS OUTLOOK

BUSINESS WEEK
JANUARY 13, 1951



People can't be very hard up. For all the pinch of high prices and record personal debt, purchasing power still is mighty powerful.

Big gains in department store sales since Christmas signal that.

And here's a footnote: "Conversion unemployment," with its temporary pinch on consumer income, can't have been very severe so far.

There is some mystery in the rather unusual level of consumer buying at this time.

Department store people say it is not another wave of scare buying. They credit "aggressive promotions" since Christmas. But, by their own story, clearances this year were going to be relatively small because stores didn't have much goods left over (BW-Jan.6'50,p19).

A more likely reason is that people figure prices are lower now than they ever will be again; it's last call for "bargains."

Here's a sidelight on purchasing power: With beef and pork more plentiful late in 1950 than at any time in several years, you might have expected prices to slide. But, no. Consumers bid them up.

Beef supplies in November and December averaged 12% above a year earlier. Pork was about 8% more plentiful. Both were at the year's peak.

And what happened to prices? Steers went up about \$3 a cwt. to the highest level since the autumn of 1948. Hogs rose \$4 a cwt. to the best mark since the big seasonal run to slaughter started in September.

Meat is a better index of purchasing power than you might think.

A working man borrows to buy a new car. But he doesn't very often go into debt to put meat on the table. He eats bread and potatoes, instead.

So, with meat supplies as large as they were late in the Old Year, prices certainly would not have gone up but for mass buying power.

Consumers continue to borrow—but not at the record rate before the Federal Reserve Board stiffened instalment terms.

In the first full month after the FRB action, instalment credit went down \$74-million. That's not a large figure in itself; in the previous 12 months, it had risen \$2-billion. But the changed trend is the thing.

Instalment paper on autos went down \$48-million. It was the first time since the war that repayments topped new loans on autos.

At the same time, charge accounts and other types of loans not hit by the Federal Reserve restrictions expanded moderately.

One reason people can keep on buying—even if they may have to borrow or dip into savings—is that they aren't worried about their jobs.

Nonfarm work never was as plentiful as in recent months. In December, jobs were 3.3-million more numerous than a year earlier.

Turnover in factories is small. Firings, particularly, are very few.

Plants don't want to lay off any skilled workers—even if materials shortages crimp output. They know it will be hard to get anyone back.

Employment had one of its peculiar gyrations from November to December: It declined a million, yet there was no rise in unemployment.

Actually, nonfarm employment went up 350,000. That's the really important figure. The drop in over-all employment may be traced to farm

BUSINESS OUTLOOK (Continued)

BUSINESS WEEK

work. Here there was a more-than-seasonal dip of 1.3-million workers, most of whom left the labor force.

Here's something to keep very much in the front of your mind: With the enlarged draft, with calls for reservists, and with enlistments running high, the civilian labor force will be shrinking gradually, not growing, throughout 1951.

Industry already is turning more and more to women workers.

There always is a swing in the number of working women from a low early in the year to a peak in the holiday shopping rush. But, in 1950, the upswing was the largest since the war.

Hirings were especially brisk after midyear. Almost a million women got nonfarm jobs while only a third that many men were being hired.

Almost as many women are working at nonfarm jobs now as during the World War II high—17.2-million against 17.4-million.

But that doesn't mean industry has exhausted hiring possibilities.

There are a lot more nonworking women of working age—37.2-million now against 33.3-million at the peak of World War II employment.

Many industries fear some disruption in output between now and March—after their civilian business slides and before arms make it up.

It still seems doubtful, however, that this will amount to much (although, in individual cases, it may be pretty rough).

Detroit, for example, bewails the lack of arms contracts. (Auto companies have big government orders—but for plants outside Detroit.) But the industry won't be hard hit. While its car-and-truck volume in the first quarter may be down 20% from the 1950 high, it still will top a year ago.

And durable goods plants in general can slow up a bit without paralyzing the economy. They now are turning out a physical volume of goods about one-eighth larger even than at the 1948 peak—and are at 265% of the 1935-39 average.

Chicago's purchasing agents have tried to measure present difficulties in doing business. Here's the nub of their finding:

Almost everyone suffers from unbalanced inventory for civilian output. Yet only 36% so far have as much as 10% of their volume in arms orders. The group predicting better volume and profit has gone down steadily since August.

Farms look attractive (1) to farmers for income, and (2) to investors as an inflation hedge. Thus the Federal Reserve Bank of Chicago's latest quarterly report shows land prices rising more rapidly on larger turnover.

Removal of all restrictions on 1951 wheat and corn planting over last weekend came as a surprise to almost no one at all. It was recognized that we would need more grain output to be on the safe side.

But there's more to it than that. The promise of large corn plantings provides an incentive to livestock raisers to step up their output.

Corn supplies, though large, have been tightly held recently. And the price rise of $25 \not c$ a bu. since November hasn't reassured hog raisers.

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STEAM CYLINDER OILS—Lubricants of high flash and fire point for saturated or superheated steam conditions and for worm gear speed-reduction units.

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Sunoco Waxes are precision-controlled for quality and uniformity of all physical and chemical characteristics important to the user. The various grades of Sunoco Wax are recommended on the basis of their ability to give superior performance on the specific job.

TEXTILE OILS



Sunctox replaces three formula components in textile mill; also saves 25% on costs.

SUNOTEX TEXTILE-PROCESS AIDS—Designed to impart desired additional properties to various fibers during their processing from the raw state a manufactured product. All Sunatex textile-process aids are emulsifiable in water. Highest rating in Fade-Ometer tests.

SUN COTTON CONDITIONERS—Processing materials which prevent waste by cutting down excessive amounts of fly (fine air-borne lint particles).

SUN ASSESTOS FISER CONDITIONER—Sprayed on asbestos during processing to keep fibers from being damaged or broken down. Harmful dust is minimized when this product is used.

SUN CORDAGE OILS—Generally used alone, but adaptable to various formulas used by cordage manufacturers. Selected products, highly compatible with additives.

SUNOTEX MACHINE OIL—One lubricant for nearly every kind of textile machine. A high-quality mineral oil and additive combination rust, clings to moving parts, and minimizes wear. Scours out of all kinds of fabrics easily and completely.

ADDITIONAL INDUSTRIAL PRODUCTS

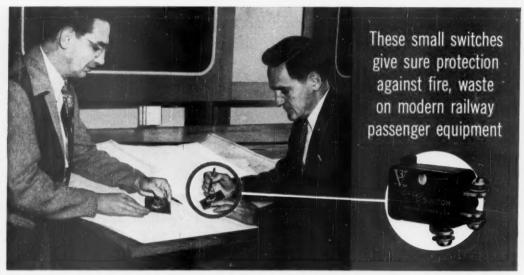
SUN SOLVENTS.—Sun Spirits for the thinning of points, varnishes, and enamels, for metal-cleaning, and certain types of processing and extraction . a pure, water-white petroleum solvent free of corrosive sulfur. Other Sun solvents with special properties are available for the chemical industry.

SUN LEATHER OILS-Petroleum-base leather oils. Used for obtaining the desired tensile strength, proper temper, and controlled moisture content. Maintain a light even color, mix well, and distribute evenly.

INDUSTRIAL PRODUCTS -SUNOCO



PULLMAN-STANDARD Car Manufacturing Co. uses MICRO Precision Switches as a principle of GOOD DESIGN!



John Popaeko, draftsman, (left) and John L. Swarner, electrical planning assistant, compare MICRO V3-1 switch installation with former non-snap type switch.

When Pullman-Standard Car Manufacturing Company's engineers sought to "kill three birds with one stone"...eliminate a potential fire hazard, avoid waste of current and improve sleeping-car design...they turned to MICRO SWITCH and found a quick answer.

The problem was to provide a small,



dependable snap-action switch to turn off automatically the berth lamp when closing the berth. Requirements were exacting: the switches must be "foolproof," must serve as ready replacements in existing cars as well as components in new ones, must be dependable and economical.

MICRO SWITCH engineers met this challenge with a precision switch that filled Pullman-Standard's needs per-

You say your organization doesn't build Pullman cars...you have no need of that type? Agreed—but perhaps you and your design engineers have a prob-

lem of product design or redesign involving a precision-switch application. If so, you should know about MICRO SWITCH . . . our full line of more than 4600 switches, each with different characteristics . . . our ability to engineer and build special snap-action switches, even for seemingly "impossible" applications! Consultation will convince youas it has convinced Pullman-Standard and thousands of other concerns, large and small — that "the use of MICRO Precision Switches is a principle of good design." Write or call MICRO SWITCH Freeport, Illinois ... or any of our branch offices.

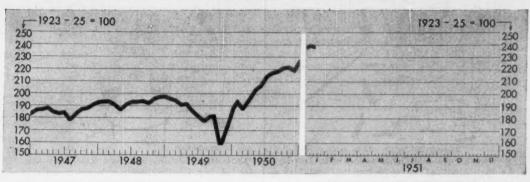
OVER 4600 TYPES OF PRECISION SNAP-ACTION SWITCHES



11CRO Precision Switc

DIVISION OF MINNEAPOLIS-HONEYWELL REGULATOR

FIGURES OF THE WEEK



	§ Latest Week	Proceding Week	Month Age	Year Ago	1947 Average
Business Week Index (above)	*230.0	†230.9	225.9	195.5	162.2
PRODUCTION					
Steel ingot operations (% of capacity)	102.7	101.8	101.3	94.0	97.3
Production of automobiles and trucks	100,337	1135,229	162,757	116,768	98,236
Engineering const. awards (Eng. News-Rec. 4-week daily av. in thousands)	\$62,421	1\$49,725	\$48,559	\$33,603	\$19,433
Electric power output (million kilowatt-hours)	6,602	6,479	6,909	5,695	3,130
Crude oil and condensate (daily average, 1,000 bbls.)	5,788	5.768	5.745	4,927	3,842
Bituminous coal (daily average, 1,000 tons)	1,820	+1,838	1,554	1,328	1,685
TRADE					
Miscellaneous and l.c.l. carloadings (daily average, 1,000 cars)	77	76	74	64	86
All other carloadings (daily average, 1,000 cars).	50	49	49	40	52
Money in circulation (millions)	\$27,685	\$27,916	\$27,698	\$27,551	\$9,613
Department store sales (change from same week of preceding year)	+21%	++18%	-1%	-4%	+17%
Business failures (Dun & Bradstreet, number)	144	125	170	161	228
DDICES (Avenues for the week)					
PRICES (Average for the week)			174.8	168.6	105.2
Cost of Living (U. S. Bureau of Labor Statistics, 1935-1939 = 100), Nov 175.6	516.4	512.5	487.4	349.9	198.1
Spot commodities, daily index (Moody's, Dec. 31, 1931 = 100)	363.4	357.0	345.9	223.7	138.5
Industrial raw materials, daily index (U. S. BLS, Aug., 1939 = 100)	396.5	387.1	367.7	300.4	146.6
Domestic farm products, daily index (U. S. BLS, Aug., 1939 = 100)	4.131¢	4.131e	4.131e	3.837€	2.396e
Finished steel composite (Iron Age, lb.)	\$45.09	\$45.09	\$45.08	\$26.42	\$19.48
Scrap steel composite (Iron Age, ton)	24.500e	24.500¢	24.500¢	18.500¢	12.022¢
Copper (electrolytic, Connecticut Valley, lb.)	\$2.40	\$2.40	\$2.28	\$2.23	\$0.99
Wheat (No. 2, hard winter, Kansas City, bu.)	6.31¢	6.34e	6.26e	5.70¢	3.38¢
Cotton, daily price (middling, ten designated markets, lb.)	43.77e	43.47e	41.97¢	30.90€	13.94e
Wool tops (Boston, lb.)	\$3.85	\$3.70	\$3.35	\$2.03	\$1.41
Rubber, daily price (ribbed smoked sheets, New York, lb.)	69.80¢	79.00e	68.20e	18.48¢	22.16e
	07.004	77.004	00.20¢	10.104	22.100
FINANCE					
90 stocks, price index (Standard & Poor's Corp.)	166.3	163.1	155.4	135.3	78.0
Medium grade corporate bond yield (Baa issues, Moody's)	3.19%	3.19%	3.21%	3.24%	4.33%
High grade corporate bond yield (Aaa issues, Moody's)	2.66%	2.66%	2.67%	2.57%	2.77%
Call loans renewal rate, N. Y. Stock Exchange (daily average)	1111%	11-11%	14-13%	11-11%	1.00%
Prime commercial paper, 4-to-6 months, N. Y. City (prevailing rate)	13%	11%	11-11%	11-11%	1-1%
BANKING (Millions of dollars)					
Demand deposits adjusted, reporting member banks	51,248	151,642	50,452	47,975	1127,777
Total loans and investments, reporting member banks	71,214	†71,789	69,807	67,222	1132,309
Commercial and agricultural loans, reporting member banks	17,859	17,839	17,261	13,851	116,963
Securities loans, reporting member banks	2,328	2,478	2,207	2,128	††1,038
U. S. gov't and gov't guaranteed obligations held, reporting member banks	33,296	133,674	32,924	37,514	††15,999
Other securities held, reporting member banks	6,501	6,516	6,303	5,035	114,303
Excess reserves, all member banks	1,206	790	960	1,458	5,290
Total federal reserve credit outstanding	21,879	21,720	20,922	19,471	2,265
Preliminary, week ended Jan. 6. †*Estimate (BW-Jul.12'47,p16).	&Date	for "Latest	Week" on †Revised.	each series	on request.



The Sergeant and the Private marched in the Statler's door. "Attention!" barked the Sergeant, "while I tell you the score. The Statler is a friendly place, and as you'll shortly see, they really treat you like a guest." The Private said: "Who, me?"



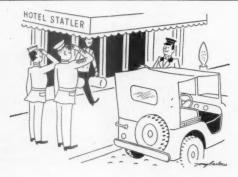
2 "Observe the Statler bed," said Sarge. "How wide, how long, how deep; 800 built-in springs and more insure a good night's sleep. Just 'hit the sack' at Statler and your pleasant dreams begin." "You're SO right, Sarge," the Private said. "Now come and tuck me in!"



A scaring sight next morning was the Sergeant's scorching wrath at finding he'd been beaten to the steaming Statler bath. "Don't worry, Sarge," the Private grinned. "There's soap enough for you. The water's always piping hot—there're lots of towels, too!"



4 "Now Statler chefs," the Sergeant smiled, "are men of great renown. The food they cook is just about the finest food in town. Eat up, my boy, it's 'top brass' food, though you're just rank and file." "It must be good," the Private said, "to make a Sergeant smile!"



5. "At Statler there's no need," they cried, "to take a lengthy hike; the business districts, shops and shows are close—and that we like! In fact, in every sort of way the Statler's sure to suit you. Like travelers all, we think it's swell, so Statler—we salute you!"



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ANOTHER GREAT NEW STATLER . LOS ANGELES (NOW UNDER CONSTRUCTION . READY FOR OCCUPANCY 1952)

WASHINGTON OUTLOOK

WASHINGTON BUREAU JAN. 13, 1951



There's a lot of sham in the fight on inflation. Officials talk soothingly of ending the price upsurge, once plans are perfected. But this is misleading. Washington is going to take the gamble that it can "regulate" inflation, keep the "good-times" climate, without letting things get out of hand.

And that is entirely different from stopping inflation.

The prospect is that business and living costs will continue on up. That's another way of saying your dollar will become worth less and less.

The weakness in the curb-inflation plan is the same as during World War II. Then, as now, the policy was to concentrate more on inflation results (high prices) than on the inflation cause (excess buying power flowing from big government spending).

This is the easy route. Getting at the cause of inflation takes strict housekeeping, taxes, and credit curbs—a hard money policy.

But these things hit the public. So fighting higher prices is much more appealing to the politician.

Price-wage controls won't do the job. They are coming, of course. The bickering in Washington is over how to start and when.

The ceilings will be only a brake at best—even if backed up with consumer rationing, which will come eventually. A few reasons why:

Some prices just can't be controlled very well—food and imports, for instance. Every time these go up, they send a wave through the whole distribution system which the stabilizers have to allow for. It happened under OPA.

Shortages also will pressure prices up. As civilian goods are cut back, ceilings will have to be raised to take care of the higher unit cost. The first example may be autos. The Dec. 1 freeze of new car prices now is being reexamined.

Wage stabilization will be soft. The stabilizers won't hold wages firmly while prices still are working up. Periodic living-cost increases will be allowed, and they will tend to keep the spiral going.

Deficit financing will be another up-pusher. True, the Treasury now is collecting more than it is paying out; that's a check on inflation. But by midyear, this probably will be reversed. And the excess spending will add to business and consumer buying power.

How much inflation is ahead? All estimates are nothing but guesses. But the stabilizers look for a 10% price rise in the first year of price control, and about 5% a year after that. These figures are minimums. Whether the rise goes higher will depend largely on other anti-inflation devices now under consideration. Their aim is to ease the pressure either by draining excess buying power, or bottling it up to limit demand for scarce goods.

Taxes are a front-line inflation weapon and are going still higher. But the policy of pay-as-we-go on defense won't be lived up to.

Here's the problem: Spending in fiscal 1952, which starts this July, will be over \$70-billion. Receipts are estimated at around \$55-billion. That

WASHINGTON OUTLOOK (Continued)

WASHINGTON BUREAU JAN. 13, 1951 leaves a deficit of \$15-billion. Making that up with new taxes will be politically tough. The easy pickings are gone. This is why:

Corporations can be hit some \$2-billion by raising regular rates to $55\,\%$ and tightening the excess profits tax. But that will be about the limit for this year.

Excises can yield \$1-billion or so through higher rates on gasoline, liquor, etc., plus a system of special rates on scarce consumer durables. The next step, a sales tax, will be hard to take politically.

Individuals can be made to give up another \$5-billion by hitting the so-called middle incomes hard. But to get much more than that would mean soaking the poor as well as the rich.

It looks like an unbalanced budget to the tune of \$5-billion to \$7-billion. That means a big addition to the cash which business and consumers will have on hand to bid for scarce goods. Deficits feed inflation.

Forced savings are being weighed. The idea is to "bottle" buying power during the period of shortages and free it later when it might be needed as an economic stimulant. A couple of the schemes:

• A percentage cut of wages and salaries. This would be deducted by employers and invested in noncashable government bonds for the duration.

• A spending tax. It would impose confiscatory rates on spending in excess of what is considered necessary for living.

Action is doubtful. The spending tax would be hard to make work. And forced buying of bonds might weaken confidence in government securities. In the past, bonds have been either negotiable or cashable on demand.

Credit will be tightened. Loan money will become harder to get, and will carry a somewhat higher interest rate.

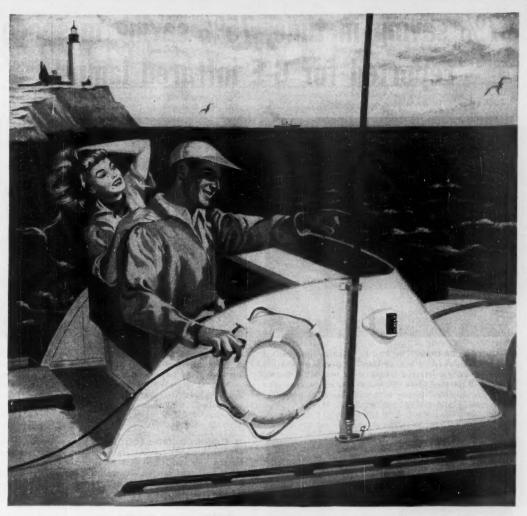
Higher reserve requirements for banks will be proposed to Congress by the Federal Reserve Board and have an even chance of passage.

A voluntary screening of loans is being urged on insurance companies and banks by the Reserve Board. The plan is for the lenders to get together and agree on a policy of limiting loans for nonessential purposes.

The Tressury's 2½% rate on long terms is being criticized by some Reserve Board members. They think the rate should be pushed up a notch to encourage investors to hold these governments, rather than cash them with the Reserve system and reinvest in better yielding private paper.

Truman and Congress: Shelving the Fair Deal will strengthen Truman. His labor-liberals don't like it, of course. But Southern conservatives will make less trouble. This assures Truman fairly solid party backing in the foreign policy fight, which is today's big issue.

There will be concessions on foreign policy, but no basic change. Europe will remain the front line of defense, and troops will be sent. But the soft attitude toward Europe's own effort will be hardened. There will be more insistence that Europe do more for its defense. And in future policy, Congress will get a bigger hand.



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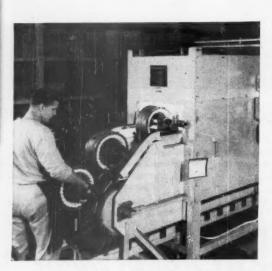
87% saving in time, 75% saving in space reported for G-E infrared lamps



QUICKER BAKING. The Phil R. Hinkley Company of Cleveland reduced baking time 87 per cent by using General Electric infrared lamps in the two ovens shown here. G-E infrared gives you quick heat at low cost—can save you time and money in a wide range of finishing, dehydrating, and drying applications.



2 LESS SPACE. Infrared ovens are compact, require less floor space and are easy to install overhead and out of the way. Many manufacturers report savings in space up to 75%. If you need room to expand, or have crowded finishing areas, General Electric infrared lamps can save you space... and money.



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GENERAL ELECTRIC

- Transitional unemployment is on the rise in some areas of industry due to production cutbacks.
- Materials shortages—not credit restrictions or defense contracts—have slowed production.
- Autos, appliances, and television are hardest hit so far-but industry knows more trouble is coming.
- Slow placement of government contracts for munitions is one reason . . .

Shift to Defense Output Begins to Hurt

For the third time in 10 years, the U.S. economy has begun disengaging its clutch. Once more, the big machine is shifting its gears to defense production. And as with any machine, that process must mean an incvitable loss of momentum—some workers laid off, some production lines stalled.

• How Long?—But the question which has the entire business community chewing its fingernails this week is this: How long will it take to get the full power back on? If the gears mesh cleanly and silently, fine for everybody. If they clash loudly before they engage, the whole economy—and the defense effort as well—will suffer badly.

Right now, even in its first movements, the gear-shifting process is not going entirely smoothly. The main reason is that the government can't seem to make up its mind what it wants in the way of defense equipment. Most contracts are coming through in such small bits and pieces that companies getting them can handle them right along with regular production.

along with regular production.

• Production Falls—So here and there production is suffering because defense contracts aren't coming fast enough to fill gaps left by curtailed civilian output. Crackdowns on use of strategic materials like copper, cobalt, and aluminum have brought cutbacks of varying degrees of seriousness. Transitional unemployment is on the rise as plants cut out whole shifts of workers, or shut down entirely for anywhere from a day to a month. Overtime work in some cases is a thing of the past.

So far, this kind of trouble is pretty spotty. Industry as a whole has not been hit yet, either by cutbacks or layoffs; in some cases, in fact, production is at new peaks. But even these industries can see the handwriting on the wall. They know that the spot cutbacks will become more general.

• Autos First-Hardest hit by cutbacks so far is the auto industry. Last week,

nearly 50,000 workers had been laid off; production had dropped an average of 20% below last month's.

The cutback had nothing to do with either credit restrictions or war orders (although the industry has some of the biggest orders yet given out). Late last fall it did look as if credit controls might limit sales, but when Korea began to go sour in December, auto dealers had a resurge of buying. The war saved them from bad overstocking. Now some believe that the cutbacks may put automobiles in short supply in the near future.

 Materials Short—The basic cause of the cutback is shortages, particularly of steel, copper, and aluminum. Copper is one thing for which car makers can use no substitute—you must have it for wiring and for radiators. Here's what the material shortage has done to some of the big car makers:

Chrysler, Studebaker, and Packard are all running 20% below December's production this month; Nash is 25% below.

General Motors hasn't been hit so hard yet, although it had 13,000 idle during the first week of this year in four plants—at Linden, N. J., Wilmington, Del., Framingham, Mass., and Kansas City, Kan.

It is expected that for the first quarter of the year, employment throughout the industry will be off an average of about 15%.

• Plums, Too-Meanwhile, however, some juicy defense plums have fallen to the industry. Among them are Cadilac's \$167-million light-tank contract, Chrysler's \$160-million medium-tank contract, Ford's \$35-million Pratt & Whitney engine contract, Willys-Overland's \$130-million order for Jeeps. As soon as the industry can get these and others rolling, its unemployment worries will be eased, if not over.

• Appliances Second—Next to autos, appliances are hardest hit. One difference here, though, is that not everyone has

suffered from cutbacks. But where the cutbacks have hit, they have hit just about as hard-and for the same reasons.

For example, Westinghouse has cut back output 15% across the board at two of its appliance plants (including the largest, at Mansfield, Ohio), and 20% at its East Springfield (Mass.) plant. The cause is mainly the copper shortage, although other materials are giving trouble, too.

Overtime Ends—So far, Westing-house production cuts haven't caused serious layoffs—almost none at Mansfield, somewhere between 3% and 6% at the other two plants. But all overtime has been stopped cold, and when a worker quits, nobody's hired to replace him.

As yet, Westinghouse has converted none of its facilities from civilian to war work. Yet at year's end, more than 30% of its unfilled orders were direct defense orders. To date, all these defense orders have been run in with civilian work.

General Electric Co. reports itself to be in about the same position on production as Westinghouse—except that it has avoided any unemployment. Instead, it has stopped all overtime, and feels it can cut back production 25% without affecting employment in any other way. By contrast, Sylvania Electric Products Co. says its electrical output (neon lights and flash bulbs, etc.) is going great guns, with no cutback yet. (At the other end of the scale, Gibson Refrigerator Co. is operating at only 65% of capacity because of materials shortages.)

• TV Third—Television is the third hardest hit industry. But oddly enough, it isn't nearly as hard hit as everybody thought it would be when the Korean war broke out last summer. At that time, almost everyone felt sure that the ent're electronics industry would shift to military output quickly—on the

ground that modern warfare is basi-

cally electronic.

As it turns out, electronics seems to be in a much brighter position as far as civilian output this year is concerned than either autos or appliances. Sylvania has very small unemployment due to cutbacks-somewhere around 21% of its 20,000 workers are idle. Other TV set makers have had short, spotty layoffs, but nothing serious. Both Admiral Corp. and Du Mont haven't had any. · Good First Quarter?-Moreover, most of the big companies see little, it any, cutback in production schedules for the first quarter. Motorola is even talking about a handsome output for the second quarter. The reason is that materials shortages aren't hitting the industry as fast as it feared (it uses only small amounts of most critical materials), and the military load is building up more slowly than originally expected.

Dr. Allen B. Du Mont, president of the Allen B. Du Mont Laboratories, Inc., now guesses that 1951 TV-set production will fall only 25% below the 9-million-per-year rate set last Sep-

tember and October.

• Ripples—Aside from autos, appliances, and electronics, there seems to be no industry at present where cutbacks and layoffs have caused more than a small ripple. The situation varies a good deal with the particular area. In Detroit, for example, the big problem is straight unemployment because of the size of the auto industry.

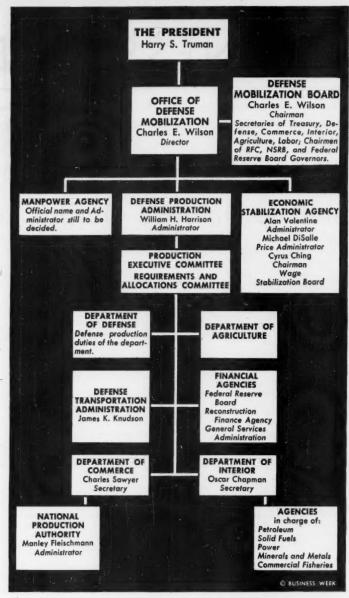
But in Cleveland, the picture is totally different, because it is largely a subcontract town. Also, there is a wide enough diversity of industry to prevent any real unemployment from cutbacks. If one company lays off 100 workers, another will snap them right up—and

more if it can get them.

• Easier for Workers—This high demand for labor, in fact, is broad enough to make transitional unemployment fairly low. The reason is this: Unlike 1940, the labor market today is tight. As a result, no company wants to lay off any skilled workers because it may never get them back when defense contracts start coming in.

Richard A. Graver, vice-president in charge of sales for Admiral Corp., said this week: "We cannot let our know-how people go, for if we do it will be very difficult to get them back."

• The Government's Move—How long will it be before government contracts begin to replace civilian production in any quantity? The answer is mainly up to the government. Defense orders are coming in in increasing quantities, but they are still small. And even after some big defense orders come in and manufacturers know what's expected of them, it will take months in most cases to retool, retrain workers, and get into full production.



Wilson's Pattern for Mobilization

Charles E. Wilson has taken the first big step toward streamlining Washington's mobilization set-up. Readiest proof is the chart above. It was impossible even to chart the ponderous pre-Wilson machine.

Wilson has given mobilization a policy head—his own Office of Defense Mobilization—and a strong arm—William H. Harrison's Defense Production Administration. Advising on such

major problems as when we'll have a controlled materials plan or at what point general price-wage controls are necessary, will be the Defense Mobilization Board's job.

DPA has a firm grip on all industrial controls: priorities, allocations, material cutbacks. It has the decisive voice on plant expansion and, until the new manpower organization becomes a reality, it has a major voice in labor supply.

New Profit Net

Congress due to extend renegotiation to all defense contracts except unprocessed farm products. Rules unchanged.

A lot more war contracts are going to have to pass through the renegotiation wringer to squeeze out "unreasonable" profits.

Defense Secretary Marshall has asked Congress for a new law subjecting to renegotiation every type of contract except unprocessed farm products. And there is little doubt that Congress will give Marshall substantially what he has asked within a few weeks.

Under the existing law, enacted in 1948, a great many types of contract are not subject to renegotiation. The Army, Navy, and Air Force can't take a second look at profits from "advertised bid" contracts, contracts for raw materials (wasting assets), for construction, or for farm products.

• Bargaining—The law, and its deficiencies, grew out of a World War II law under which Congress gave the military the right to go back after delivery to see if the contractor had made too much money. In the case of many newly-devised items, neither the military nor industry had any advance idea what costs would be.

The government looks over a contractor's total government business for a year, and decides if the over-all profit is excessive. A "fair profit" can range from as little as 2% to as much as 20%. Theoretically, the government has standards to determine how much money it will recapture: efficiency of the contractor; reasonableness of cost and profits; amount and source of private and public capital employed, and the net worth of the company; extent of risk on the part of the contractor; nature of the contract and its contribution to defense; and the character of the

• It's a Bargain—Despite these rather vague yardsticks, renegotiation ends up as a matter of bargaining. The government says how much it wants back; its claim is bolstered by its legal power to take what it wants. The contractor says how much he is willing to give back; he can argue that to pay more would wipe him out, and so mean no more production. He can threaten to appeal to Congress or the courts. The lines are drawn on these points of strength; after haggling, a final figure is reached.

The new bill requested by Marshall will follow closely the language of Rep. Vinson's HR 9564 introduced last August. It would apply to all contracts

now in force, no matter when they were signed, provided deliveries are made after the bill becomes a law.

• \$100,000 Limit—A company which has aggregate receipts and accruals from defense contracts in excess of \$100,000 during the company's fiscal year (as determined for tax purposes) would be subject to renegotiation.

All contracts (except agricultural)—prime and subcontracts alike—would be subject to renegotiation. The present exemption for contracts of \$1,000-and-under is described as an administrative monstrosity. It won't be asked for again. It's much simpler for a large company to renegotiate profits of all its defense business than to try to cull out those due to \$1,000 contracts.

• Contingent—There is one group of contracts where \$25,000 (rather than \$100,000) is the "accruals and receipts" figure that determines whether or not the company is subject to renegotiation. Aimed at "five-percenters" who negotiate contracts, the lower limit applies to subcontracts where the amount payable "is contingent upon the procurement of a contract or contracts..." or where the fee to be paid is for patent rovalties or formula use.

The fact that, under the new bill, bid contracts would be subject to renegotiation doesn't mean much now. Except for standard soft goods, most defense contracting today is on a negotiated basis. Less than 5% of present procurement is handled through advertised bidding.



New Fighter for USAF

During flight tests over Muroc, Calif., Republic Aviation's new F-84F Thunderjet fighter fires five of its load of 5-in. rockets (note white spots in the air ahead of plane). The swept-wing fighter is the latest to join the Air Force's team of jets. It's designed for high speeds and long range.

Dream Comes True

New England steel mill assured after Washington O.K.'s amortization. Two financing plans drawn up.

New England's dream, a steel mill of its very own, is now almost a sure thing. The government put its official seal of approval on the idea this week when the National Security Resources Board issued a \$250-million certificate of necessity to the New England Steel Development Corp. That will enable the corporation to write off the cost of the plant in five years instead of 20.

• Specifications—The mill will be located in the New London-Waterford area of Connecticut. It will have ingot capacity of about 1-million tons a year. And it will be completely integrated, starting with iron ore and turning out finished steel.

Two major questions remain to be answered: how the mill will be financed, and who will operate it. And the answer to the first depends on the answer to the second.

If the mill is operated by an independent New England Steel Corp., the financing will be a three-way affair, according to Clifford S. Strike, president of the development corporation. A group of insurance companies has indicated that it will provide all but about \$80-million or \$90-million of the \$250-million of basic construction capital needed. The development corporation believes it can get the rest as a defense loan from the government, under the Defense Production Act. And three different investment bankers have indicated that the needed \$40-million of equity capital could easily be raised by public sale of securities.

be raised by public sale of securities.

If, instead of being completely independent, the mill is operated in connection with one of the country's big steel companies, the insurance companies would supply all of the \$250-million, and no government loan would be needed. Again, the equity capital would come from the public.

• Cheaper—Strike says steel made in New London would cost users in New England and New York less than the same stuff shipped out of Sparrows Point or areas further west. Ore would come from overseas—Latin America, Europe, Africa, eventually Labrador.

Coverdale & Colpitts, the New York engineering firm, has made a thorough study of the new mill's potential market. The results have not been officially released yet. But the unofficial word is that it has been finished, and that it played a big part in NSRB's decision.



"SHE GOES." At Pittsburgh "HO" Railroad Club, Koppers' Al Yeske nurses one of 165 pieces of motor power owned by members.



GULLIVER ON LILLIPUT: Ed Campbell, of Pittsburgh Post-Gazette and club vice-president, does a delicate wiring job.



A JOB FOR TWO: Charlie Kent (left) of Philadelphia Co. and John Kress of Peoples First National Bank fix wrecking car.



SALES CARES FORGOTTEN, R. S. Galbraith, salesman and organist, solders overhead wire. His specialty: trolley cars.

-Million Worth of Fun on Model Rails

Fifteen years ago the model railroad fan was a solitary hobbyist. He stole off to the quiet of his attic or his cellar, turned his own lathe, made his own dies. Maybe he took a tip from his business-like the dentist who used his denture-casting technique to mold

locomotive front ends.

Today, model railroading has broken out of solitary confinement. The fans number well over 100,000. The country bristles with 1,000 member clubs of the National Model Railroad Assn. • \$10-Million-It's big business. One good estimate is that fans spend around \$10-million a year on their hobby; some estimates go as high as \$20-million. The enthusiasts keep between 150 and 200 manufacturers busy full time making model railroad parts, kits, accessories. They keep 80 major jobbers in business, help support 2,000 hobby

Besides that, 104,000 hobbyists sub-

scribe to Model Railroader, published by Kalmbach Pub. Co., Milwaukee.

• What Did It?-Model Railroader

was one growth factor. So was the war: It gave the hobby manufacturers war business that made big-scale production

easier when peace came.

The particular breed that keeps all this business humming is not to be confused with Pop who plays with Junior's train. To the real fancier, Pop is known -and scorned-as a mere tinplater; the genuine article is the "scale boy," who insists that every detail be just perfect.

· Manufacturers-But the manufacturer who supplies the scale boys is often a colorful character in his own right. One of the foremost is Gordon Varney. Varney was a West Coast real estate man, who got the model railroading bug back in 1936. Nearly brole, he paid out his last \$300 to have an industrial designer whip up a model box car. Varney Railway Models, now in

Chicago, says its dealers sold \$1-million worth of kits in 1950.

Another big one is Mantua Metal Products Co., Woodbury Heights, N. J. This firm, run by John Tyler, makes about 80% of all the locomotive model kits. During the war he made computing equipment. Now, with 90% of his business in model railroads, he figures 1950 net sales at around \$500,000.

Then there's Irvin Athearn, of Los Angeles. Athearn does business from a chair on the front lawn of his house, though he has more businesslike facilities. Trade circles guess Athearn's net business in 1950 was close to \$1-million. · Hobbyists All-The wholesalers are apt to be fans, too. One of the big operations belongs to Theo. R. Parker, of Pittsburgh. He did about \$415,000 worth of business last year. A part-time history teacher at the University of Pittsburgh, he runs the business as a profitable way of enjoying his hobby.



WIRES CROSSED? Ed Campbell gets under the table. It takes a lot of wire to manipulate the 2,500 cars that club members own.



OVER THE BRIDGE: F. J. Colson, architectural engineer, gives a lift to a model of Santa Fe's diesel "Chief," complete with Astradome.



CRASH: Sam Heyle (right), design engineer for Duquesne Light, and Charlie Kent head for trouble. Wrecks are rare on model railroad.

Legal Price Discrimination

Supreme Court upsets FTC ruling, holds that separate prices are O.K. if made in good faith to meet competition. Decision clarifies controversial words of Robinson-Patman act.

It's now perfectly legal for a seller to give one customer a better price than another-as long as the seller can prove that in all good faith he had to discriminate in order to meet the equally low price of a competing seller.

That's the meaning of the Supreme Court's ruling last week in the longdrawn Standard Oil of Indiana case. In ruling, the court did something that the 81st Congress failed to do in two years of trying: It clarified the con-troversial "good faith clause" of the Robinson-Patman antiprice-discrimination act.

• FTC Ruling-The court's ruling made the Federal Trade Commission decidedly unhappy. FTC, backed by the Seventh Circuit Court of Appeals, had ruled differently. It had interpreted Robinson-Patman's Section 2(B) this

Price discrimination is illegal per se. Sellers can show they are meeting competition in good faith, as provided in the law, and if that's all that's involved, FTC turns the seller loose. But if

FTC finds that the seller's "good faith" price discrimination substantially lessens competition or tends to create a monopoly, then the discrimination is il-

legal despite the "good faith."

• The Law-Here's the R-P language that's at the heart of all the ruckus:

Upon proof being made . . . that there has been discrimination . . . the burden of rebutting the prima-facie case thus made by showing justification shall be upon the person charged with a violation . . . provided, however, that nothing herein contained shall prevent a seller from rebutting the prima-facie case thus made by showing that his lower price . . . was made in good faith to meet an equally low price of a competitor . . .

• Gasoline Sales-The question of what this really means came up in 1940 when FTC accused Standard Oil of Indiana of selling gasoline to four large Detroit customers-jobbers who also retailed. and a local chain of retail stations-at prices lower than it sold the same gasoline to small retailers in the area.

Standard Oil tried to prove to the FTC that it gave these big customers a better price only to meet a lower price offered by other refiners.

FTC ruled, in 1945, that it didn't have to decide whether this was so or not. Instead, FTC said, this good faith meeting of competition "does not constitute a defense in the face of affirmative proof that the effect of the discrimination was to injure, destroy, and prevent competition" between the four jobbers and other retail customers of Standard Oil.

• Basing Point-The Standard Oil of Indiana case gained particular importance from the chain of events which began in 1948 with the Supreme Court's sweeping cement decision which banned basing-point systems of pricing (BW-Jun.12'48,p74). That decision cast doubt on the legality of any pricing system in which delivered prices were

The decision brought a storm of protest from business. Finally, Congress undertook to rewrite those portions of the antitrust laws that affect delivered pricing. After almost two years of pulling and hauling, this produced last year's O'Mahoney bill. One of the major sections in the bill gave com-panies a firm go-ahead signal for good faith meeting of prices (BW-Jun.10 '50,p16). President Truman vetoed the bill, at the urging of his small business

Now the Supreme Court has, in effect, written the O'Mahoney good faith clause into law.

· Search for Sense-There's no doubt, when you read between the lines, that the court majority decided it had to find some sensible meaning in a law which, if it means what it seems to say, doesn't make such sense.

· Big Manufacturers-Proponents of Robinson-Patman are claiming that the court has gutted the law. They claim that, from here on out, it will be a cinch for big manufacturers to show they have to discriminate in favor of. big customers to meet the price of a competing seller.

The small business bloc, in Congress and out, will keep up a furor over the decision. They're saving that the justices have not only undone Robinson-Patman, but also their own decision against basing-point pricing.

• Good Faith?—There's a loose end in

all this that's yet to be tied up by FTC. The court has directed it to rule now on what it refused to rule on before: whether or not Standard Oil's price discrimination was, in fact, made in good faith.

Which way is the commission likely to go? Guessers point out that, on the record, FTC's trial examiner who first heard the case ruled for the company

on this point.



Between Mine and Mill-A New Coal Laundry

Inland Steel Co. upped its pig-iron output this week without adding an inch to steelmaking capacity. At Price, Ky., it put into operation a new coal preparation plant that will: (1) remove slate and stone from raw coal, and thus (2) make possible a coke with

a lower ash content, which will (3) raise pigiron output by an estimated 200 tons a day. In all, Inland figures the plant will save it about \$1 a ton on pig costs. Link-Belt Co. built the installation, connected it to the mine portal by a conveyor.

Aluminum for Sale

Alcan will have it, if it goes through with new Canadian plant. But it talks of not building unless U.S. buys output.

In one swoop last week, Canada started toward raising its aluminum capacity 50%. The vast Aluminum Co. of Canada signed a contract with the British Columbia government for power rights on the Kemano River. It was the first concrete step in Alcan's long-talked-of plan for a new 600-million-lb-a-year plant in the West.

Market Deal—The company says it is now ready to go ahead with the plant—if and when it is assured of a market for the output. To Ottawa, that seemed to put the "if" in Washington's lap. If it agrees to buy the output, the plant goes up. If the U.S. sticks to expanding domestic production, the plant remains a plan.

So far, there's nothing to show that the U.S. has made any commitment—either money or materials—for the plant. Canada may have had some encouragement that it could get steel for the plant here, if other sources fail. But that, apparently, is all.

• Is it Solid?—Industry observers, however, feel that a lot of Alcan's "buy-orelse" talk may be for the record. They figure the company is likely to go ahead, whether it makes a firm U.S. sale or not. For one thing, Alcan probably can count on further commitments from Britain and other users in a period of climbing world demand. More important, there is a chance that U.S. expansion may not match up to needs.

The earliest the British Columbia plant could start production is in three years. By that time, all new U. S. capacity should be producing. On the basis of present plans, added domestic output will amount to about 790-million lb. a year (BW-Dec.2'50,p25), including the share from reactivated potlines.

But that will not even meet NSRB's short-term expansion goal of 1-billion lb., let alone its long-range aim of 2-billion lb. (Domestic producers insist they will expand as much as the government asks, but say they haven't been asked for anything like 1-billion lb. or 2-billion lb.) If production still falls short in 1954, it seems certain U.S. mobilizers would turn to Canada.

• Refused Once—Top-level bartering

• Refused Once—Top-level bartering between Washington and Ottawa on aluminum has been going off and on for months. Right after Korea, Canada offered to sell the U. S. 440-million lb., but was turned down. Washington's reason was that only a small part of the total could be had immediately; most of it was slated to come from the British Columbia plant.

The upshot was that Washington decided to drop Canadian negotiations and concentrate on domestic expansion. Then, Britain moved in with a new contract, sewed up most of the remaining Alcan output (BW—Dec. 23 '50,p28).

DO's For Airlines

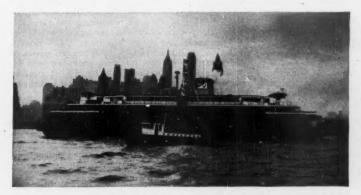
NPA authorizes CAA to issue priorities to air transport companies for new planes and maintenance material.

The National Production Administration made its first big concession to private industry last week. It gave DO priorities to the air transport industry to cover new plane construction, as well as maintenance and operating equipment.

The Civil Aeronautics Administration was authorized to issue the new DO orders, which have exactly the same status as those attached to military projects. The Civil Aeronautics Board will serve as the claimant agency for the new aircraft; and CAB will make its requests for priorities to CAA. In addition, CAA will have authority to issue DO ratings for orders for materials and equipment to be used in federal airports and in its own airport safety and navigation facilities.

• Military Screening—Actually, neither agency will have much say in the matter. The DO's will be funneled to CAA through the Defense Dept. And the armed forces will tangle in the red tape involved in screening priorities for civilian aircraft.

The screening program hadn't been lined up early this week, but it was clear that the Munitions Board, the Air Co-





A Ferry and a Foot Bridge Link New York's Islands

A ferryboat and a foot bridge brought Manhattan's island neighbors a little closer last week. The ferry, named the Pvt. Joseph F. Merrell, Jr. in honor of a World War II hero, is the first of three to be put in service on the Manhattan-Staten Island run. It seats 3,000 on three decks, is 290 ft. long, and costs over \$2-million. The en-

closed decks on the new vessel are ventilated by blowers which blow in warm air in winter, draw cool air in from the surface of the bay during the summer. For safety's sake, there are 3,300 life preservers, four life boats, plenty of life rafts, and 12 watertight compartments. A loudspeaker system can carry messages all over the boat.

Barges carried the final section of the new foot bridge into place. Then it was hoisted up level with the ramps on each side. The bridge, 956 ft. long, spans the Harlem River between East 103rd St. and Wards Island. It will make another park area available to residents of crowded East Harlem.

ordinating Committee, and NPA would be consulted in practically every case.

• Benefit—The first batch of new pri-

orities are carmarked for the 189 planes on order last November. Some of these planes are nearly finished, but the new orders will step up delivery.

Many of them have been held up by materials shortages. The industry has been clamoring for assistance, finally convinced the armed services of the value of civil aircraft—especially transports. The military, in turn, worked on NPA to extend the priorities.

 Preparing for CMP—The military is now getting together with the aircraft people to work out plans for the scheduling of all airplane production. This is in preparation for the anticipated revival of World War II's Controlled Materials Plan, under which aircraft production was regulated by a group answering to the War Production Board.

World Raw Materials Mobilized by New Setup

Machinery for mobilizing the free world's raw materials began to take form this week-first prints of the Trunan-Atlee talks. Soon Washington will be the headquarters of a brand new administrative hierarchy. Its aim: to get producers and consumers of a host of commodities to agree on production, distribution, and price problems.

• Setup—On top of the organization will be a Central Group consisting at first of the U.S., the United Kingdom, and France; other nations and international organizations will join later.

national organizations will join later. The Central Group will set up a whole string of commodity subgroups, with producers and consumers represented, to work out controls and production programs for individual commodities. The Central group will act as executive secretariat or steering committee. The commodity groups will make the decisions—which aren't binding on the various governments.

• Invitations—Next week the Central Group will send out its first invitations for commodity groups "most urgently needed." Chances are the list will include some nonferrous metals—surely copper and zinc—some ferro-alloys (page 80), including manganese and nickel, and sulphur. Later, groups will be formed for rubber and tin. Later still, the problems of wool, cotton, and cotton linters will be tackled. Wool is low on the list only because nothing can be done before the next clip reaches the market next fall.

Invitations for the raw materials pool went out to virtually every nation outside the Russian bloc-including West Germany, Japan, and Yugoslavia.

One Boss for Transportation

New legislation proposes a single agency to regulate all branches of carriers, plus centralized control over subsidies. Issue touches off interindustry battle.

The long-brewing issue of setting up a single regulatory agency for all types of transportation is due for a showdown. In its current session, Congress will grapple with the problem of rewriting the 1940 transportation act.

The gist of the proposed legislation is to create a single agency to regulate all forms of transportation and to centralize control over all subsidies for carriers. If the legislation is passed, it will be a long step toward integration of all types of carriers.

Don't look for an early, or an easy, settlement. The question of who can own what is still unanswered. But in spite of bitter opposition from some of the industry, chances of enactment run better than 50-50.

The new legislation proposes:

A National Transportation Commission. This over-all agency would absorb the Interstate Commerce Commission, take over the economic regulation of air and maritime commerce (now handled by Civil Aeronautics Board and Commerce Dept.). It would be an independent agency, and would regulate all types of transportation.

Railroads have long griped that CAB and the former independent Maritime Commission "promoted" air and sea commerce with government subsidies, while ICC "regulated" and held down

rail transportation.

Promotional control. An UnderSecretary of Commerce for Transportation would administer, operate, and coordinate all federal promotional activities. He would pass on mail subsidies
for airlines and shippers; would control government support for all transportation—airways facilities, airports,
roads, rivers and harbor improvement,
navigational aids. The U.S. spends
about \$1.5-billion yearly for these activities. It's not yet clear just where
the National Transportation Commis-

sion would fit into this.

Transportation companies have long complained that the government helps keep uneconomic carriers in business, but forces out economic ones. Railroads, for example, contend that mailpay subsidy to airlines is unfair because it allows the airlines to keep passenger fares artificially low.

Operational integration. That means looking at transportation from an overall standpoint. For example, in determining whether new air service should be supplied to a community, the new agency would take into consideration

the community's bus, rail, and truck facilities. At present, CAB only considers its air service situation; ICC, its rail and trucking service.

Single bills of lading and throughticketing by the fastest and most economic routing would be pushed. It now takes five bills of lading for a rail shipment to get from Boston to San Francisco.

There's also the problem of transportation "cliques": Trucks can channel shipments to other truckers for transcontinental haul, when rail would be faster and cheaper. This would probably bring up the touchy question of whether or not one kind of transportation would be allowed to get into another line.

Compensatory mail pay. The Post Office would be required to pay the rails enough to cover costs. The rail-roads are now asking a 95% down-the-line increase. Guess is that ICC will balk at anything higher than 40%. Parcel post rate increases would be directed. Post Office is now losing over \$100-million annually on low parcel post rates.

Taxes for private carriers. A common carrier now has to levy a 3% cargo and a 15% passenger tax. But private carriers, say a fleet of automobiles, do not have to levy this tax.

New rail equipment. To promote modernization, the legislation would allow two tax benefits: (1) a 50% depreciation of the cost of property within 60 months following acquisition; and (2) deduction of up to 25% of gross income, provided it is placed in a reserve for capital expenditure.

Minimum-maximum rate structure. This would replace the fixed-rate structure now in force. The maximum would protect shippers against monopolistic overcharge; the minimum would prevent freezing out of competition. Competition would operate within the maximum-minimum range.

Maximum truck weight. The measure would establish a maximum weight for federal highways in all states.

• Discord—The legislation is bound to spark off a hot interindustry fight. Railroads are solidly behind a single regulatory agency. Truckers and airlines are against it. They feel that the agency would be dominated by the roads, and that centralized subsidy control would bring on a sharp curtailment of government help. If the legislation goes through, they will fight it.



Sinclam's "City of Stockholders" has an even larger population than Topeka, the Capital of Kansas—which will give you an idea of the broad ownership of this corporation.

Sinclair has 100,542 stockholders—people of wealth and moderate means, employees, widows, men and women who have retired. The list of shareholders includes many leading institutions—colleges, hospitals, churches, as well as insurance companies, investment trusts and trust funds. No one person owns more than 1% of the stock. In fact, the average holding is 121 shares.

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BUSINESS BRIEFS

War orders begin to mount. Hotpoint: turbo-superchargers and components for the J-48 jet engine. . . Chrysler: probably a license from Pratt & Whitney to build the J-48. . . Oldsmobile: high-velocity tank guns. . . Servel: airplane wings for the Republic F-48 fighter. . . Lear, Inc.: more of its automatic pilots. . . Minneapolis-Honeywell: a license to make them.

Lustron's ex-boss, Carl G. Strandlund, asked RFC to lend him another \$3.5-million to reorganize the shut-down concern to build defense housing. "Not a ghost of a chance," was the Washington reaction.

Ford shelved plans for a new two-building administrative center at Dearborn. Materials shortages, the company said.

Voluntary censorship of industrial information was called for by Commerce Dept. Industry, it said, may get advice on doubtful material from the Office of Technical Services. "It is not contemplated," said Secretary Sawyer, "that persons in a position to release unclassified technical information will normally call on OTS for guidance regarding release to known representatives of recognized publications."

B&O R.R. was indicted by a federal grand jury for granting concessions to General Motors. The charge: The road sold GM a Delaware plant site on its lines for about half what the land cost. Fines on 15 counts could run to \$300,000.

Copper-bottom pots were put on allocation by Ekco Products. Consumers have been scrambling for them all week (page 50).

Freight-car orders last year—156,481—were the highest since 1922. But Iron Age says the building program isn't gathering steam as planned. The 10,000-car-per-month goal isn't likely till June.

Natural-gas expansion: It will give Detroit a new 24-in. line to the Michigan storage area by next winter. . . . The Southwest gets 400-million more cu. ft. a day this year and next through new pipe from El Paso Natural Gas Co. . . . Texas Gas Transmission has ticketed \$42.3-million for new lines into the Midwest and Appalachian area.

Owens-Corning broke ground on a new Fiberglas yarn plant at Anderson, S. C. It will have about 175,000 sq. ft. of floor space, and is supposed to be finished by midyear.



MICROFILM ... sure cure for a front office headache!

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A SUBMARINE. Latest military Jeeps can run submerged to the windshield.

Conversion to War a Cinch for Jeeps

Willys turns out all civilian and military models on same line. Neither peace nor war presents any conversion problems.



LINE'S VERSATILE, TOO. Willys production setup handles all kinds of vehicles. Here's a light truck, followed by an Army Jeep. In the background is a station wagon.

Most U.S. industries are getting ready for the big 1951 obstacle race. The hurdles: converting from 100% civilian production to some sort of defense work.

• Home Safe—Willys-Overland Motors, Inc., of Toledo, smiles smugly at the rest of the industrial entries. Willys has already run the course, and finished without even breathing hard. At least, it ran its own special course, with just one jump—the length of a pint-sized 4 x 4 military Jeep, a stubby 132 in. over-all.

The company took the jump in stride, unfazed by huge orders for military Jeeps. The war babies of the auto industry pour off the same assembly line that turns out the nine-model Willys line of civilian vehicles. Parts are interchangeable to an unprecedented degree. If the emergency gets tougher, Willys just closes the civilian tap tighter, opens the military tap wider. Comes peace, and the process is reversed.

• War Born-It's a natural that Willys fits into a war picture. For the modern version of the company really got its start in World War II. Here's the blow-by-blow account of Willys development since 1936, when Ward M. Canaday (cover) first became the company's top boss. (Canaday has been



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Prompt Delivery from Warehouse Stocks in Principal Cities — Consult Your Telephone Directories back as president since June, 1950. The company's top stockholder, Canaday has been in and out of the president's chair—and that of board chairman—for 15 years.)

Back in 1938, Canaday hired engineer Delmar (Barney) G. Roos (now a vice-president and director). Roos designed a powerful four-cylinder engine for the company's small Americar. The Americar was just beginning to catch on in 1940–sales were 31,000—when the U. S. suddenly converted to war.

U. S. suddenly converted to war.

• Came the Jeep—Canaday made the Roos engine the guts of what later became the Jeep. And the Jeep beat out two competitors (Ford and Bantam) when the Army called for a small, tough utility car to replace the motorcycle and sidecar.

The Jeep made Willys what it is today. It put the company into the black, with a \$2.8-million net in 1945. And it gave the company a ready-made product for civilian markets within weeks after the war ended.

Between 1945 and Korea, Willys developed its line of civilian Jeeps, Sepsters, station wagons, and light trucks. Two new engines were brought out, a six-cylinder job and a high-compression four-cylinder model. Meanwhile, Willys kept on perfecting the military Jeep on an experimental basis.

• Experiments End—In June, 1949, the Army told Willys to stop experimenting, and get ready to produce the military model as it stood. That meant a considerable advance over the World War II model. The new Jeep is practically a cousin to a submarine, can run

submerged to the windshield.

Since then, the company has received more Army orders, culminating in a recent \$63-million contract, the biggest ever. Production now is flowing nicely—just how fast is a military secret. And while it was getting going on the military side, Willys performed the neat trick of (1) coming out of the red on civilian production and (2) becoming sole engine supplier for Kaiser-Frazer's new Henry J. models (400 Henry J. motors a day come right off Willys' own production line—which, characteristically, didn't have to be changed to do the job).

• Extra Operations—For the military, the company had to route Jeeps through additional assembly operations. And it set up portable metal-stamping machines between the stationary presses, to add other GI twists to the standard model.

There are other differences besides the submarine quality. Army Jeeps have a different electric system. There are additional braces, more screws, heavier steel in places.

Despite all this, Willys has kept so much uniformity of parts and process that military and civilian models share

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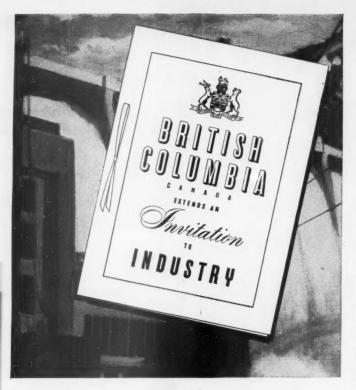
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the assembly lines. Basic dies are the same, and that's what counts in tooling

· Sales Slump-On the purely civilian side, Willys hit its peak in 1948, producing 138,000 units, compared with a wartime top of 107,000 in 1944. In 1949, came a selling slump, aggravated by a drop in farm income. (A third of Willys civilian output goes to farmers.)

From October, 1949, through March, 1950, Willys lost \$900,000. That brought Canaday back as chairman and then president. Since last April, the company has been making money again.

It's not this move back into the black that has other industries green with envy. It's the swift and easy shift back and forth between civilian and military production. Most everybody in the finished metal-working industries has an enormous conversion problem. Willys made it almost as easily as though it were turning out cans of

• Special Case-Few other companies can hope to duplicate this feat; Willys is a special case. Three main factors account for this: (1) Willys remained in the business it began in 1941, when the first big Jeep order was filled; (2) it has been working closely with the Army since 1946, redesigning the military Jeep; and (3) it spent \$35-million on plant improvements.

· Basic Design-Even with its three types of engines and nine different models, Willys never strayed too far away from the basic Jeep design. In fact, company officials pat themselves on the back now because they didn't spend a big chunk of money tooling up for an entirely different passenger car styled after the European small car (BW-Oct.25'47,p38).

Prime mover in the whole Jeep setup is the 65-year-old Canaday, the in-again, out-again president. Canaday is basically an advertising and financial expert. John N. Willys, then chairman of the board, hired him in 1916 to set up a time-payment system for autos. Canaday is credited with starting the first auto finance company.

• Bankruptcy-Willys sold out in 1929. Later, in the depression, the company passed into bankruptcy. In 1936, Canaday and his good friend, Toledo attorney George W. Ritter, got control.

Since then, Canaday has served variously as president, chairman of the board, and chairman of the finance committee. He has let other men try their hands, too. Among them: J. W. (Joe) Frazer (later of Kaiser-Frazer), who left in 1943; Charles E. Sorenson, once a Ford vice-president, who lasted from 1944 to 1946 but is still vice-chairman, thanks to a contract good until 1954; and finally, James D. Mooney of General Motors, who came in as chairman and president after Sorenson stepped down, only to be replaced by Canaday.

• Big Ideas—Insiders say that the frequent changes of top management came because nearly everyone except Canaday had ideas too grandiose for the specialized Willys market. They wanted to buck the standard cars, instead of sticking to a special utility field. But Canaday remembered how the company stubbed its toe in the late 20's trying to out-GM General Motors with a variety of models. Then, too, the Whippet was a flop. And the Americar had never had a chance to get well-

established.
• Full Career—During these hectic years, Canaday has managed to have outside interests which would have made a full career for most people. He formed an advertising agency which is still running. He made himself into a housing expert, and in 1933 helped push through the National Housing Act. Later he served as assistant housing administrator. Today, he is chief of the U.S. section of the Caribbean Commis-

sion (he has an estate in the Virgin

But Willys was always his overriding interest. That interest looks mighty healthy right now. The company has a \$173-backlog of Army and civilian orders. It's looking for other war work, such as it did last time: shells, aircraft parts, steel and aluminum forgings.

What's more, Canaday says: "The company can step up military output much further and still keep the public

supplied."

DPA Will Bring In More Building Bans

A speed-up of construction controls is expected to follow last week's executive order establishing the Defense Pro-

duction Administration.

First to come-perhaps within a month-may be a prohibition on commercial construction. It would be similar to VHP-1, the order that Civilian Production Administration put out after the war. It might specifically ban the building of service stations and stores.

• Licensing Order—A few months later will come the culminating construction control order that will put all non-defense building on a licensing basis. Every nondefense project would have to be certified by National Production Administration before ground was broken.

Such an order would, in effect, duplicate the famous—and much-violated—WLB order L-41 of World War II. However, the future licensing scheme will probably be tied in with a broadening of the priorities ban to include critical construction materials.

• Delay-Both of these upcoming orders will greatly increase the load of

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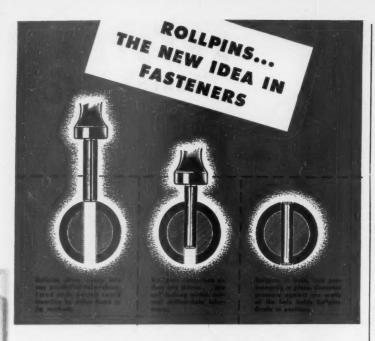


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In the short period since their introduction, manufacturers are already using Rollpins as steel fastening pins holding pulleys and gears to shafts; as pivot or hinge pins, clevis pins, cotter keys, shafts, and locating dowels... to provide lower-cost, simplified, vibration-proof assemblies. Rollpins require no special installation skills...readily replace your present fastener ... exceed the sheer strength of a cold-rolled pin of equal diameter. Rollpins stay tightly in place until deliberately removed with a pin punch—can be used over and over again.

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paperwork on the Construction Controls Division of NPA. The division will need a much bigger staff than it has now to handle the added work. It will take time to gather the staff, and that may delay the orders.

Tire Makers Expect Cheaper Natural Rubber

Tire makers are looking for the price of natural rubber to go down. That's the expected result of the government's move last week to take over all the importing and distribution of rubber (BW-Jan.6'51,p35). From now on, there'll be only one bidder for the U.S. in the market, instead of dozens. What Harvey Firestone, Jr., calls the "speculative element" in natural rubber buying will be at a minimum.

Last week's order makes rubber the first commodity to be taken over completely by the government under the Defense Production Act of 1950. It does not apply to rubber contracts registered with General Services Administration before Jan. 6. Checking runaway prices was the object from the start (BW—Dec.9'50,p76). Most major manufacturers had urged the government to take this step for weeks. A one-cent reduction in the price of a pound of rubber would save \$13-million at today's annual consumption rate.

• Same Amount—Producers of tires or other rubber products aren't expected to feel the new order much. It won't cut the amount of rubber to be brought into this country or the amount the manufacturers can get. Neither do government officials see any need for tire rationing. The industry says that the 90,000 tons a month (natural and synthetic combined) allotted to civilian use will take care of all normal tire requirements for the public.

ments for the public.
• Procedure—The government will use the buying organizations of the major tire firms in the Far East. These will buy rubber for the account of the U.S. instead of for their particular company. Then, the rubber will be shipped to warehouses in this country for stock-publing.

Under a rotation procedure, older rubber now in warehouses will be sold to manufacturers. The newer stocks will replace what is sold. So far, the price has not been set.

During the first quarter of 1951, GSA is making 43,000 tons of rubber from its stockpile available to industry.

Government officials feel the move will facilitate any international arrangement to divide up the world's supplies of natural rubber. The International Rubber Study Group that meets in Washington this month is almost certain to propose a distribution plan.



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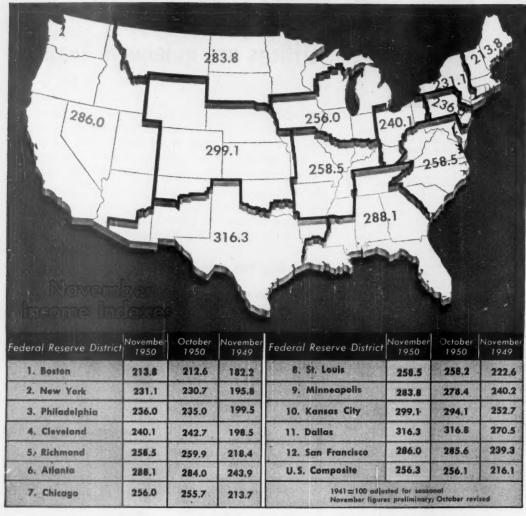
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REGIONAL REPORT



Income Factors: Conversion, Farming

Again in November, regional income gains and losses just about balanced out, leaving the national composite practically unchanged. This pattern is likely to continue for a while—until the conversion period is over, and the nation really gets rolling on the armament program. Until then, some further declines in income are likely in the heavygoods regions, where curtailed output due to material shortages will cut the employment rolls.

Biggest income gains in November showed up in two predominantly farming regions—Minneapolis and Kansas City. This might have been expected; farm income this year started out very weakly and then closed the year with a rush. Cash receipts in November were 8% above a year ago; the gain in December was even greater. Total for the year was practically unchanged from last year's \$28-billion, with a slight rise in income from livestock just about balancing a decline in income from crops.

• Later Computation—The Regional Report appears two weeks later than usual this month. And from now on, it will continue to appear about the middle of each month instead of at the beginning. The reason lies in the construction of the income indexes. Because of the dislocations imposed by the war and by government controls, the component series that make up the indexes are harder to get, and preliminary estimates of them are less reliable. So, to insure that our preliminary income estimates aren't way wide of the mark, we must delay computation of the indexes until more final figures are available.

There is always the possibility, as wartime restrictions and regulations get

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more rigid, that the component factors may become unreliable as indicators of income. In that case, we will have to discontinue the indexes altogether, as we did early in the last war (BW-Mar.6 '43,p73). We will continue to print the indexes as long as we are confident that they are statistically valid.



NDUSTRIAL activity has flattened out at a high level during the last couple of months. In November, employment dropped, though less than seasonally, but it rose about seasonally in December.

Like the rest of the country, the Southeast is waiting for defense orders to start rolling. At the same time, it's in a better position to wait it out than the heavy-goods areas in the North; its major peacetime industries aren't so vulnerable to cutbacks in critical materials.

One exception is the Birmingham area, where foundries and other metal-working plants are feeling the pinch of the steel shortage and may have to lay off some workers. On the other hand, textile mills around Birmingham (and throughout the region) are all on two 48-hour shifts; many are on three. They have big order backlogs and are looking for defense business to increase them. Their biggest worry is that the small cotton crop may result in a shortage of raw material before next year's crop comes in.

• On the Farm-Farm income in the region last year was up only slightly over 1949 despite higher prices. Reason, of course, is the disappointingly small cotton crop. Take Alabama, for example. Value of the state's field crops is estimated at \$310-million, up 2.8% over 1949. But income from cotton and cottonseed was down \$11-million, to \$131-million. The corn crop, however, was worth \$15-million more than 1949's; the peanut crop \$4-million more.

Burley-tobacco growers in eastern Tennessee did very well; their crop was a bit bigger than last year's, and prices were way up because of the relatively poor Kentucky crop. Florida's citrus growers are also in a good spot despite slightly lower prices. Early and midseason oranges are setting a new production record, 4% over last year's big crop.

Recurrent cold spells since Thanksgiving have not hurt the citrus belt. But Florida's truck crops have been badly hit. Small grains and cover crops are in poor condition in all district states. Inadequate moisture is also a major problem in Alabama and Georgia. Dairy farmers in the northern and central parts of these states are buying feed heavily.

Florida's tourist traffic is booming. But income isn't keeping pace. Reason: The state overbuilt tourist accommodations in the postwar years, so there's a big excess of space over tourists. Only those places that are willing to cut their rates are filling up.

• Paradox—Biggest new-plant news for the region is a plant that's not in the region at all: the \$260-million H-bomb installation in South Carolina. Augusta, Ga., 20 mi. away, is the only big city near it.

Here are a few highlights of the many new plants that have been announced for the region: In Florida, St. Regis Paper is building a \$20-million mill near Pensacola and a \$10-million mill near Jacksonville. In Georgia, Lockheed will reactivate the wartime bomber plant at Marietta, and Atlantic Steel plans a multimillion-dollar expansion at Atlanta. Biggest in Alabama is Republic Steel's expansion at Birmingham; cost has not been announced, but may run as high as \$10-million. Also at Birmingham, Woodward Iron is building a \$4½-million blast furnace; Harbison-Walker, a \$5-million tunnel kiln; and Conners Steel plans a \$2million expansion. TVA will build a phosphorus plant at Muscle Shoals, to cost between \$40-million and \$100million. And at Greenville, Riegel Textile Corp. has bought Merrimac Hat Corp.'s plant and will hire 700. (Merrimac transferred its operations to its home plant at Amesbury, Mass .see Region 1 report.)

In Louisiana, Alcoa, Kaiser, and Reynolds are all said to be planning aluminum plants near New Orleans, each to cost \$70-million or more. International Harvester is building a \$2-million, 750-man twine mill at New Orleans; Ideal Cement will build a \$4-million cement plant at Baton Rouge; Continental Oil is spending \$10-million and Southern Alkali \$34-million on expansion at Lake Charles; Cabot Carbon is forking out \$4-million to build a carbon-black plant at Frank-line.

In Mississippi, Marquette Cement is building a \$4-million cement plant at Brandon, and Wells Lamont Corp. plans a 350-man glove factory at Waynesboro. Quaker Oats is building a multimillion-dollar plant at Chattanooga, Tenn.



VER-ALL, the region has been marking time industrially for the past two or three months. What new war work has come in, has been balanced by layoffs caused by curtailment of peacetime production.

But it's the timing that's worrying the region's businessmen. This worry is especially strong in Detroit. The auto companies have already started to cut back car output. Chrysler is reducing output of all divisions by 20% this month, laying off perhaps 20,000. Ford says it may lay off as many as 40,000 by March.

In addition to the layoffs, the auto companies have cut out practically all overtime work. So payrolls are down even more than employment.

In South Bend, Studebaker is operating only four days a week this month on passenger cars. In Milwaukee, Nash's body plant has laid off 1,800 "indefinitely" because of steel shortages.

• Farm Income—Farm sections are doing very well. Principal reason: rising prices for hogs and beef cattle. Price gains for grains and oilseeds also mean income gains for the district's farmers. Wisconsin's dairy farmers lagged behind the rest of the region all year up to November, but income there turned up sharply in December due to heavy demand from makers of butter, cheese, and condensed milk.

• Expansion—New plants in and around Chicago include: Minnesota Mining & Mfg., \$4-million; Container Corp., \$1\frac{1}{2}-million; Darling & Co., \$2-million (fertilizer); United Drill & Tool, \$1\frac{1}{2}-million; International Register, \$1-million; American Cyanamid, \$3-million (at Michigan City, Ind.). Elsewhere in Illinois, Libbey-Owens-Ford plans a \$3-million expansion at Ottawa, and Keystone Steel & Wire, a \$1\frac{1}{2}-million expansion at Peoria.

In Indianapolis, Chrysler has let a \$7-million contract for a new assembly

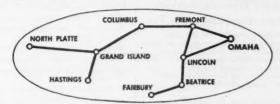


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Union Pacific's Omaha Industrial District of 470 acres offers exceptional opportunities for new or expanding industries. If your plans follow the trend toward decentralization, it will be to your advantage to learn the complete facts about this important new area for your manufacturing, processing and warehousing needs.

Already established in the district are units of such organizations as Socony Vacuum, United Motors (Division of General Motors), Safeway Stores, and William Volker & Co. of Nebraska, Inc.

Similar in many respects to the noted Fairfax (Kansas City) development, the Omaha Industrial District's advantages include a ready supply of skilled, native labor, available utilities, paved areas, and—vital to your national distribution—rail siding potentials providing Union Pacific's dependable freight transportation.

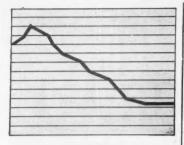


Other choice plant sites along the Union Pacific, in Nebraska, are still available in Lincoln, Grand Island, Hastings, North Platte, Fremont, Beatrice, Columbus and Fairbury.

Systemwide, Union Pacific's industrial plant opportunities include sites in these eleven States: NEBRASKA, KANSAS, COLORADO, UTAH, WYOMING, IDAHO, MONTANA, NEVADA, CALIFORNIA, OREGON and WASHINGTON.

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UNION PACIFIC RAILROAD, ROOM 106, OMAHA 2, NEBR.

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CUTTING FILING COSTS

How much are unnecessary records in your files costing you—in monthly rental for office storage space—in investments for additional file cabinets—in excessive elerical time handling records? Recent studies indicate that in the average company about 35% of present records can be safely destroyed, another 30% should be transferred to inexpensive storage, and only the remainder kept within operational reach. But how to determine which to keep and which to destroy? What procedures can safely dispose of accumulated records?

DARTNELL Report No. 590

This Report not only outlines methods used by some 235 companies for solving problems like these, but covers systems developed to do the job smoothly, continuously, and automatically. Included are sample forms, charts, checklists, formulas for calculating filing costs, and many other effective aids. Why not order today and, look it over on our 10-day approval basis?

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Techniques Including:

- -Westinghouse Electric's "flow-schedule"
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- --- Nine steps for Cutting Costs --- Proctor & Gamble's Record Audit





plant. Allis-Chalmers will build a \$2-million plant at La Porte; and Fairfield Mfg., a \$2-million plant at Lafayette.

In Michigan, Chrysler plans a new 3,000-man engine plant at Trenton; Ford will open a branch plant at Monroe; and GM has let a \$65-million contract for the new Buick plant at Flint. Premier Pulp & Paper, of Canada, plans a \$10-million paper plant at Port Huron.

Two big utility expansions have been announced in Wisconsin: \$100-million by Wisconsin Electric Power at Milwaukee and \$20-million by Wisconsin-Michigan Power at Green Bay. And Nekoosa-Edwards is starting a \$4\frac{1}{2}-million expansion at Nekoosa.



THIS PREDOMINANTLY agriculatural region presents a sharp contrast today to a year ago. Last January Business week said: "Income was lower again—the eighth straight month. The sharp drop in farm income in 1949 has hurt... rural areas."

But today things are booming throughout the region. Income rose steadily through 1950; the November index is 19% above the low of last December. With prices substantially higher, yields of all crops were high in all district states.

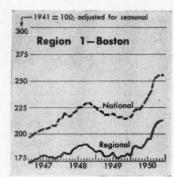
Montana is the brightest spot in the generally bright agricultural picture. In addition to its high livestock income, the state hit a jackpot combination of high prices and high yields on its field crops. It harvested 68.7-million bu. of spring wheat, for instance—72½% more than in 1949, and 70½% more than the average of the 10 preceding years. And it already has a good start on this year; a substantial part of the 1951 wool clip has already been contracted for at a record \$1 a lb.

 Active—Over-all, the region expects a critical manpower pinch come spring. Both manufacturing and mining activity are very high. At Minneapolis-Honeywell, for instance, employment is about even with the World War II peak despite the layoff of 800 last week due to material shortages. Employment in Montana's copper mines and smelters is still rising.

Copper employment on Michigan's upper peninsula is also at a peak; it has been rising steadily since the Oct. 1 boost in the price of refined copper to 24½¢. In addition, Copper Range Co. plans a major development of low-grade underground copper ore at its White Pine mine near Ontonagon.

Underground iron mines on the Mesabi and Michigan's iron ranges will continue full production throughout the winter. Most of the ore will be stockpiled for shipment when the lakes open next spring; some will be shipped by rail.

New plants in Montana include a \$25-million aluminum plant at Kalispell for Harvey Machine Co. and a \$3-million cat cracker at Laurel. Northern States Power is building a \$6-million power plant at Sioux Falls, S. D. And in Superior, Wis., Lakehead Pipeline Co. is building a \$1.7-million oilstorage depot, and Western Oil & Fuel Co. plans a \$74-million refinery.



FOR THE REGION as a whole, the expansion in output and employment that was so marked during the summer and early fall has slowed almost to a standstill. Unemployment rose slightly in October and early November, dropped slightly in December. It's the normal seasonal pattern: first a decline in food-processing, construction, shoes; then a rise in retail trade.

Employment dislocations caused by the shift from peace to war production are not expected to loom large in New England. The region's major industries—textiles and apparel, shoes, machinery and metal-working, electrical and electronic equipment—face no big plant changes to make war goods.

The one big exception is Rhode Island's jewelry industry—because its major raw materials are the scarce nonferrous metals. Manufacturers are sure war orders will come in eventually. But they tear their workers will drift away to other jobs if the gap between slack-

ening peace business and the start of war business gets much wider.

Elsewhere in the region, conversion unemployment has been minor, affecting mostly small, isolated consumergoods plants. One example: A television-cabinet factory closed down last month in Turners Falls, Mass., throwing 100 out of work.

In Connecticut, which leads the New England states in value of defense contracts awarded so far, employment is still trending sharply higher, reaching an all-time peak in December. Manpower shortages include not only the usual skilled workers, but also, for the first time, unskilled men for heavy common labor. At least two companies—Pratt & Whitney, of Hartford, and Electric Boat, of Groton—are actively recruiting workers in Maine.

tively recruiting workers in Maine. Maine has been slow to feel the effects of defense activity. So total employment has been falling ever since October, due to seasonal declines in fish-canning, shoes, construction, etc., and workers have been moving out to the Connecticut and Massachusetts manufacturing centers.

The same is true of New Hampshire, though to a lesser extent (New Hampshire has received twice as much in war contracts as Maine, to date). Unemployment rose from 8,900 in October to 10,500 last month. But there has been only a little emigration so far. Some manufacturers gave out unsolicited yearend wage boosts to keep their workers from moving away before expected war orders materialize.

• Expansion—Expansions and new construction in Massachusetts include an \$8-million plant for Ford at Natick; a \$4-million plant for National Biscuit at Belmont; a \$24-million expansion by Firestone at Fall River. Raytheon has opened its new 300-man plant at Quincy, and Merrimac Hat Co. is add-

ing 300 at Amesbury.

Connecticut employment news is mostly expansion of work forces at existing plants rather than new plants. In East Hartford, Pratt & Whitney has gone on three full 48-hour shifts and is adding new workers at the rate of 50 a day; it is also reactivating its Southington plant, with employment expected to reach 4,000. Electric Boat has added 1,000 at Groton; Underwood 1,200. Dow Chemical has started work on its 55-million styron plant at Allyn's Point, near New London.

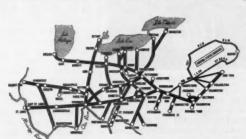
At Limestone, Me., the Air Force is rushing work on its \$29-million B-29 base. Some 350 men are working there now; by spring there will be 3,000, with a \$1-million monthly payroll. The Navy is building a \$5½-million jet base at Brunswick. The paper companies are all putting larger crews in the woods this winter, to boost their stocks of pulp

On time, as usual!

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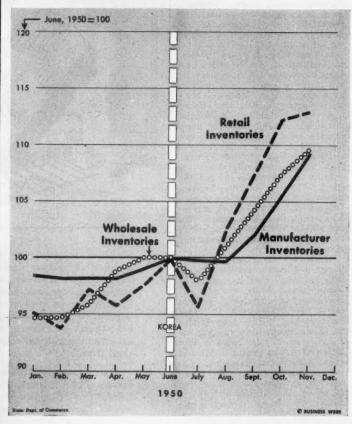
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MARKETING



High Stocks Don't Worry Stores

Ordinarily, the chart above would flash a caution signal to U. S. business. It would warn them that inventories were dangerously high, that they'd better go easy. But today, it tells an entirely different story.

• Shortages Coming—Despite the fact that stocks all along the line are still climbing, no one is worrying about getting overloaded. The inventory peak is going to be reached in the spring. After that, businessmen probably will be hard put to keep stocks big enough to avoid loss of sales.

Individual firms, of course, may find themselves with momentary surpluses of single items. But even these won't be anything to worry about. The sales and supply picture are plain. As one government economist has said, "It will be impossible to have too much goods on your shelf or in your warehouse. Your inventories, even now, are better than cash."

Even the merchandisers who were cying their stocks with misgivings just a few weeks ago are no longer worried about the size of inventories.

• New Tune—Take television sets. A little more than a month ago, dealers and distributors were moaning because their shelves and warehouses bulged with unsold sets (BW—Dec.2'50,p81). But the brisk business of the past few weeks has changed their tune. They'd be happier, now, if their shelves were still bulging with unsold sets. As one appliance distributor put it last week, "Today, dealers would hock their immortal souls to get the money to finance bigger stocks."

There's a similar situation in soft goods. Back in the summer, it looked as though merchants had overbought on many lines (BW-Aug.19'50,p60). But Christmas changed that picture. Stores haven't had to put on anything very sensational in the way of post-

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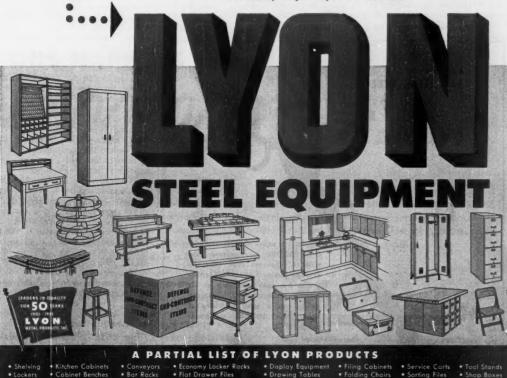
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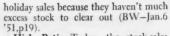
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• High Ratio—Today, the stock-sales ratio for retailers as a whole is the highest in history. Stocks have been climbing steadily since the brief buying panic that was touched off by the invasion of Korea. (And that caused only a 5% dip in retail inventories—less at manufacturing and wholesale levels.)

As the chart shows, inventory accumulation at the retail level has outstripped that at manufacturing and wholesale. This is what you can expect in a period when everyone is trying to build stocks. The retailer has the advantage because he is at the end of the supply pipeline.

• Production Cuts—The stock-sales ratio doesn't worry retailers a bit. They are sure that, come summer, stocks will begin dwindling. Cuts in civilian production coupled with heavy consumer demand will reverse the present trend.

The outlook isn't quite the same for both durables and nondurables. In hard goods, of course, inventories probably will be most conspicuous by their absence before the end of the year. But the pinch will be far less severe in soft goods in 1951—if the U. S. stays out of war. Military buying will fall heaviest on the hard goods producers.

 Pattern—Here's what the experts think is going to happen to inventories at the manufacturing, wholesale, and retail levels:

Manufacturers are rushing to stock up with civilian goods while they can still get materials, and before their plants are converted. On the whole, they are expected to boost stocks—after higher shipments—another 4% to 5% by the time the spring peak is reached. (That will put the total about 14% to 15% above the pre-Korean level.) The bulk of the accumulation will come in nondurables, which may continue to expand on into the summer.

Wholesalers are usually willing to let manufacturers carry as much stock as possible; but in these days of rising prices, you can pick up a nice profit on inventory. So wholesalers are eager to hold the goods themselves. All told, wholesalers will probably up their inventories by another 2.5% or 3%—or about 12% to 13% above the pre-Korean figure.

Retailers liquidated a lot of inventory last month in the customary Christmas rush. It's too early to say just how much they sold, but they are now in the market for large quantities of goods—to replenish, to guard against price rises, and to prepare for big demand in a period of shortages. So they are expected to boost stocks by 6% to 7% in the next three months. That will push them to 19% to 20% above last June's level.



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Death of 5¢ Coke

Jump in bottlers' prices is forcing retailers to raise price of Coca-Cola. Other soft drink hikes are sure to follow.

The nickel price line for soft drinks has pretty well fallen apart. You pay 6¢ today for a bottle of Coca-Cola in New York City, Little Rock, and Cincinnati; 7¢ in parts of South Carolina; 10¢ in a few other sections. Prices of other soft drinks have gone up, too. Slot machines are being rejiggered to catch the extra pennics.

• Georgia, Too-Even in Georgia, home of Coca-Cola, it looks as though the 5¢ drink will soon be a thing of the past. In Augusta and a score of other towns, bottlers have just raised their price for a case of 24 bottles from 80¢ to 85¢. Retail prices are still sticking at a nickel, mainly because retailers are afraid of public reaction if they raise a penny or two. But they figure that another round of increases in the cost of sugar, bottles, caps, or wages will do the trick.

The increase in bottlers' prices has been spasmodic and uneven. In Atlanta, Savannah, and several other major cities in Georgia, bottlers are still selling Coke at the old price of 80¢ for 24 bottles. Yet in Alexandria, La., the price is \$1 a case wholesale. A lot of bottlers are charging 96¢.

This picture is typical of the industry today. The passing of the old nickel price has left a wake of confusion.

• Standard Up—For years, the more or less standard price in the industry has been 80¢ for a case of 24 bottles of 6-oz. to 12-oz. capacity. But now, the trade figures that perhaps half of the nation's 6,500 bottlers have advanced their prices above that. The new prices range anywhere from 85¢ to \$1.20 a case—and even \$1.40 in some parts of the Midwest and Northwest.

These increases haven't forced all retail prices up. Many retailers absorb increases up to 5¢ or 10¢ a case. When it goes above that, retailers find it necessary to go to 6¢ a bottle, regard-less of human resistance.

less of buyer resistance.

The trade now figures that the predominant price charged by bottlers will range between 96¢ and \$1. If that proves true, the average retail price for soft drinks will probably be 6¢ a bottle.

• Gone for Good—But it would only be the average price. For out of all the possible results of the present situation, the trade is sure of one thing. The old nationwide standard price is gone for good. From now on it looks as though there are going to be regional variations in price, depending on labor costs, volume of consumption, distribution costs, and other regional factors.



Line Forms for Copper-Clad Pots

The government's limitation order on copper sent crowds scurrying into Gimbel's New York department store. They wanted Revere copper-clad cooking utensils before the supply runs short. Stores all over the country reported heavier buying of warthreatened goods last week than during the Christmas season. It's a good example of the spot scare-buying you'll see from now on, as line after line threatens to go short.





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Milk Hike Rumpus

Safeway contends that California price increase is unnecessary, says that cash-andcarry customers should get a cut.

Usually, only the public gets upset when milk prices go up. But not so in California, where the retail price jumped 1¢ a qt. last week (BW–Dec.30'50,p56). This time, the increase is threatening to curdle the in-

dustry itself.

During the public hearings, the industry-with one exception-was solidly behind the hike. But the exception couldn't be overlooked. Powerful Safeway Stores argued that the price should be lowered, not upped. Said the chain's milk specialist, O. Grover Steele: "It's obvious that it isn't only the cows that are being milked. . . . If the retail prices were based upon average cfficiency, milk could be sold in Los Angeles stores for at least 1¢ a qt. less than

today's prices. • "Gouging"-Gist of Steele's com-plaint was that the state price-fixing law for milk prevents retailers from passing along to the consumer any of the economies realized through mass deliveries: "Cash-and-carry store buyers of milk are being gouged by the state's fixed prices." He backed this up by quoting figures from a little publicized survey made for the state in the Los Angeles marketing area. The survey indicated that it costs a distributor only one-tenth as much to deliver milk to big-volume outlets as to small ones. A single delivery of 200 qt. costs the distributor 0.3¢ a qt.; deliveries of less than 25 qt., up to 3¢ a qt.; delivery of one quart to a home, 8.8¢

• Integration-Steele used these figures to snipe at the growing vertical integration whereby milk operators are acquiring interests in wholesale and retail grocery outlets (BW-Jul.29'50, p38). He declared bluntly that unnecessarily wide profit margins provided the distributors with "slush funds" for

these ventures.

Safeway, of course, is no disinterested bystander. It distributes products of its own captive dairy, Lucerne, through

its cash-and-carry stores.

• Not All Hay—Though used to Safeway's needling, the dairymen blew their tops. They even moved to strike Steele's remarks from the record. Their own case was based on the claim that skyrocketing costs-on everything from hav to taxes were eating away their profit

But the basic difficulty remains. The state control bureau hasn't come up with an answer to the problem created

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often change "losing" operations into profit makers!

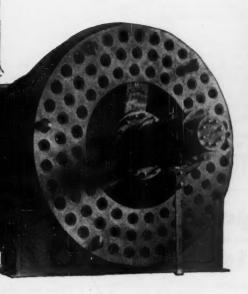
Drying is frequently the most costly operation of a bulk material production process ... and the kind of attention Louisville gives to drying pays off for you!

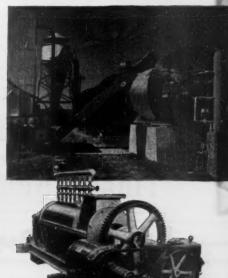
Based on a background of over 50 years' experience with hundreds of different materials, Louisville uses this approach:

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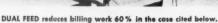
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- Design the most efficient form, Capital Airlines' five-part Kant-Slip CONTINUOUS ticket in Form Flow REGIS-TER spells \$60,000 savings annually. (PS 20)

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BURSTER-IMPRINTERS Sign, date, numb



by integrating distribution with retailing. One plan under consideration is a sliding scale of service charges. The state is also weighing every-other-day

delivery for small stores.

• To Come-And the 1¢ increase may be only a starter. Most of it went to milk producers. Now the distributors are muttering about a 1¢ hike for themselves.

MARKETING BRIEFS

Standardization will stretch materials supplies for American Can's Seattle plant. It will offer only two, instead of four, sizes of frozen food containers.

Synthetic carpets will account for 20% to 25% of James Lees' total carpet production this year. The synthetic types will cost 25% to 30% less than comparable wool grades.

No tire shortage in 1951 is the prediction of William O'Neil, president of General Tire & Rubber. But he warns: "There will be tires enough in 1951 to meet vital domestic transportation needs-if the motorists buy only those tires absolutely necessary.

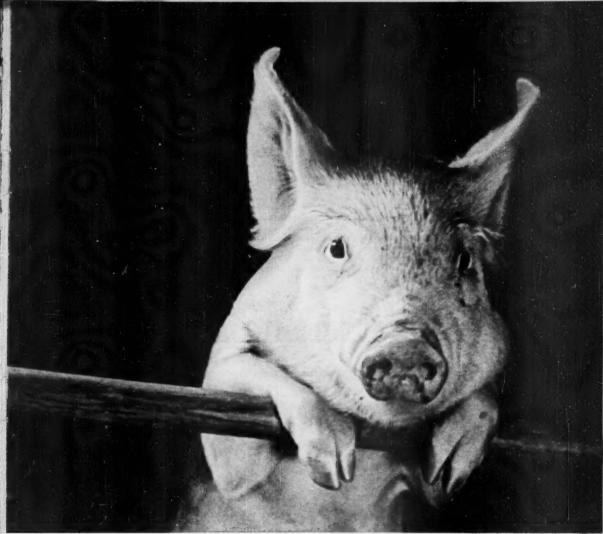
Postal service curtailments "have slowed down New York business, added to operational costs of many firms, caused losses to others," says Commerce & Industry Assn. of New York. Survey shows that on outgoing first-class mail 24 hr. to 48 hr. are added to delivery time.

"Savings club plan" is Kennedy-Clark's answer to credit restrictions. You get the washer or TV set when you've put in enough for the down payment. The Rochester (N. Y.) store admits you have to wait awhile for your appliance, but says "you've waited a long, long while for it already, haven't you?

Admiral's advertising plans: The ad budget for TV sets and other products will hold at the 1950 rate (\$18-million for the year) during the first quarter. Cutbacks will depend on the military.

Tour of Europe will be made by a home furnishings exhibit assembled by the Museum of Modern Art. Idea is to show Europeans the "best progressive designs" produced by U.S. makers of stoves, refrigerators, fabrics, etc.

Nylon hose sales in 1950 were up 15% over 1949. The National Assn. of Hosiery Manufacturers puts the 11month total of women's full-fashioned nylon hose at 47.7-million dozen pairs. In 1949 total factory shipments hit 41.5million for the same period.



How to bring home more bacon!

HERE'S good news for farmers, housewives and everyone who wants more and better bacon, ham and pork chops on the dinner table.

A remarkable new growth-promoting ingredient known as Vitamin Bu-Antibiotic (Aureomycin) Feed Supplement is now being added to many animal feeds by leading feed manufacturers. Pigs raised on such diets gain in weight substantially faster than those fed the best of other feeds, according to tests at Agricultural Experiment Stations in Florida, Illinois, Indiana, Iowa, Michigan, Nebraska, Ohio and other swine producing states. They not only grow into hefty porkers faster-they are also healthier, less subject to disease, and runtiness is eliminated!

Vitamin Bi-Antibiotic (Aureomycin) Feed Supplement is produced in the making of Aureomycin, the life-saving drug developed by Lederle Laboratories Division of the American Cyanamid Company. Its use will save money for the farmer and help him produce more high quality meats for the world's needs. It is another contribution of Cyanamid's continuing research.



AMERICAN Cyanamid COMPANY

30 ROCKEFELLER PLAZA, NEW YORK 20, N. Y.

Look what the "name-trains"



ACROSS THE COUNTRY the railroads" "name-trains", flagships of the rails, are really making a name for themselves—and the railroads. There are more than 150 of them, crack streamliners all, with glamorous new features to make travel fun as never before. Come for a ride and see...



DINERS, FOR INSTANCE, feature slick new ideas like tables that let you take in the view while you dine without dropping a forkful. And if it weren't for the scenery rushing by you'd think you were in a topnotch hotel, the food's that good.



THE NEW TRAINS are built to make the most of the scenic splendor along many of their routes. Coach windows are extra wide and many lounge cars have glass tops that let you look up as well as out.

Now meet the next great step



PROGRESS STARTED. The railroads are gearing up to give freight service like you've never known. Improvements already include better terminals, reduced handling, radio dispatching. And now roller bearings are ready to bring the same sort of revolution in freight trains they did in passenger trains—a new standard of service for shippers, economies for the railroads.



winning customers. In going after tomorrow's freight business, "Roller Freight" can be the railroads' star attraction to win back lost freight tomage, and gain new. Because Timken bearings cut starting resistance 88%, the usual jolts and jars are eliminated, merchandise gets a smooth, protected ride.



MORE CARS. With "Roller Freight" the rails can give you better service than ever because they'll have more cars available to do it with. "Roller Freight" gets there faster, spends less time out for repairs. Result: a big increase in America's freight car capacity—a vital factor in critical times.

Watch the railroads GO...on

have done to make travel fun...



THE SANDMAN is hard to resist when you're in a bedroom like this! And you'll sleep till the porter's "good morning" because Timken roller bearings on the axles help eliminate jolts and jars.



YET THE "NAME-TRAINS" aren't high hat. Emphasis is on low-cost travel-in daycoaches that have a club-like atmosphere by day, bedroom-like comfort at night. Other "name-train" attractions include barbershops, telephones, showers.



MUCH OF THE SUCCESS of the new passenger equipment has been due to Timken tapered roller bearings on train axles, permitting faster speed and smoother rides. Now, freight trains are next to be equipped with Timken bearings. And with that step forward will come a new era in railroad progress!

in railroading..."Roller Freight"!



NO "HOT BOXES". You'll want to ship on freights equipped with Timken bearings, because they virtually eliminate the "hot boxes" that delay deliveries, gum up schedules. The railroads will then be able to make on-time delivery every time!



NO WINTER CUTS. Freights on friction bearings often have to be cut as much as 30% in zero weather. Freights on Timken bearings don't. Roller bearings also make practical the use of other improvements like tighter couplings and high-speed trucks.



HOW ABOUT COST? Timken cartridge journalbox-and-bearing assemblies for freight cars cost about 1/5 less than applications of five years ago. And they save the railroads money -through fewer damage claims, no "hot box" expense, 90% fewer man-hours for terminal inspection, increased car availability, longer trains! "Roller Freight" is ready now to speed railroad progress! The Timken Roller Bearing Company, Canton 6, Ohio.

TIMKEN tapered roller bearings COPR 1851 THE TIMENE

The fourth in a new series of advertise...en/s designed to tell the G-E Silicone Story to industry.

HOW YOU PROFIT FROM WHAT G-E SILICONES



Oddly enough, one of the valuable characteristics of General Electric silicones is something silicones *won't* do. What is it they won't do? We're glad you asked that question. They won't react with most common materials.

Yes, G-E silicones are *inert*. For example, silicone rubber gaskets in mercury power systems won't react with mercury vapor. Silicones are not affected by sunlight; silicone oils will not deteriorate rubber.

This characteristic of inertness can be valuable to you in applications where deterioration due to chemical reaction is a problem. Besides being inert, G-E silicones are extremely resistant to heat and cold; they provide excellent release from sticking, and they have a variety of useful surface properties.

HOW CAN YOU USE G-E SILICONES PROFITABLY?

More and more manufacturers are finding applications for silicones in their businesses. If you have a problem an inert material could solve—if heat or cold resistance, or release from sticking is a problem—it will pay you to investigate General Electric silicones. Write us on your letterhead for a free copy of the interesting new brochure, "The Silicone Story." Address: Section N1, Chemical Department, General Electric Company, Pittsfield, Massachusetts. (In Canada: Canadian General Electric Company, Ltd., Toronto.)



Even Mild Acids Won't Affect Silicones

Dilute acids and alkalies will not combine or react with silicone materials, even when the two are mixed together. Silicones are *inert*.



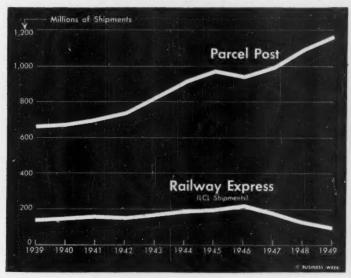
Silicone Paints Resist Deterioration, Staining

Paints formulated with G-E silicone resins are amazingly resistant to the deteriorating forces of the elements. A silicone-painted panel exposed to Florida sunlight for 3 years showed virtually no chalking or fading!

Iodine poured on a siliconepainted surface will wipe off without staining, due to the non-reactive quality of G-E silicone materials.

GENERAL (ELECTRIC

TRANSPORTATION



OUTPACED by parcel post, express shipments have lost ground steadily for three years.

End of Railway Express?

The agency's 25-year contract with its owner railroads runs out in three years. There's strong pressure now for calling it quits. Other roads want to keep operation—but with big changes.

For many railroads, the child has been a disappointment. In the 22 years since they fathered the Railway Express Agency, the offspring has brought little but grief, unpaid bills, and domestic upsets.

• Infanticide?—But in 22 years, the child has also run through most of its life. Under an operating contract with the agency, the roads gave railway express a trial span of only 25 years. In 1954, they are to look again and decide whether to keep the brat, or kill it off once and for all.

They may not kill it, but they seem almost sure to maim it.

There is already a strong bloc-made up mainly of eastern carriers—that wants to get rid of the agency entirely. Another, more moderate wing, would hold onto the business but would revamp its operations from top to bottom. Against these are a few carriers, the ones who have made money from express, who; would keep things as they are, or change them only slightly.

them only slightly.

Among the three, there will undoubtedly be compromise. But even compromise will mean drastic change.

Except for a few westerners, railroad

men are almost unanimous in their opinion that if the contract is renewed, it won't be in anything like the present form.

• Losing Game—The reasons are obvious. In the last three years, the roads have lost steadily on express operations—perhaps as much as \$100-million a year. They have watched parcel post, freight forwarders, and truckers haul away more and more of their payload. They have had to wage long, legal fights to win rate increases (four since the war) that, in the end, never closed the gap.

gap.
• Born in Hope—It wasn't always so.
When 86 railroads set up the Railway
Express Agency on Dec. 7, 1928, there
were high hopes that the express business which had grown through 80 years
would continue to flourish.

The agency was actually the direct descendant of the men who had started carrying fancy freight in their carpetbags early in the 19th century. It was formed to buy up the properties of American Railway Express Co. and to become the joint agency for the roads in handling their express business. (American Railway Express, in turn, had been or-



A special, confidential report on Manitoba, Canada's Province of Industry, may supply the facts and figures needed to solve your plant location problem.

The Manitoba Department of Industry and Commerce is in an unrivalled position to supply confidential, authoritative and unbiased technical data on markets ... competition ... raw materials, power, labor ... plant sites ... tax and labor legislation ... and other locational factors relating to your business.







WRAPPING MACHINES

Fully automatic . . . high production, low cost . . . Electric Eye registration ... 40 years' experience.

Write for further information, technical packaging help, and name of your Hayssen representative.

HAYSSEN MFG. COMPANY SHEBOYGAN, WISCONSIN

ganized as a war measure in 1918 to consolidate the express operations of seven companies. Among them were such glamorous veterans as Wells Fargo, Adams, American, and Southern.)

· Roads Own It-All the stock of the agency-1,000 no-par shares-is held by the owner railroads, originally 86, now 68 in number. Each road's slice is figured out on the basis of the amount of express traffic it hauled during a period in the 20's. The largest stock-holder is the New York Central (142

The stock of the agency represents only voting rights-not earnings. Revenue is parceled out at the end of each month to the owner roads on the basis of the express business they handle. There are no dividends, and no net income or profit is kept by the agency.

· Something for Everybody-The way it works out, each road's share of total revenue corresponds roughly to its ownership in the agency. Actually, there is a complicated formula for doling out revenue to the roads each month in line with the traffic they haul. But the routing of the traffic itself is governed by a general policy laid down in the contract between Railway Express and the carriers.

In part, this contract says that the agency will divide competitive business "between the said carriers, giving due consideration to the distribution of competitive traffic enjoyed by them during the three years ending Dec. 31, 1928. . . ." Since this is the same period used in figuring ownership in the agency, the effect is to give each owner a percentage of total traffic in line with its share in the agency.

• The Yoke-This contract that the roads have lived with was hammered out under pressure of a deadline in early 1929. For some of the railroads, its terms have been the worst part of the express business.

The most damaging clause, some officials contend, is the one requiring the agency to route traffic in proportion to a railroad's ownership. They say this has kept the agency from making the most efficient use of the railroad system-and has lost it business.

For the eastern roads, the constant rub is the provision that each carrier has to foot the bill for all terminal charges in its own area. Most of the express business originates in the East, but the roads turn over a good portion of their shipments to western carriers at either St. Louis or Chicago. Both roads are paid in proportion to the distance they haul the traffic. The gripe is that eastern roads, with less revenue from the shipments, have to meet higher terminal costs-10% to 30% above those on the West Coast. · Uneconomic?-Beyond contract inequities, however, many roads see a

much bigger reason for changing the status of Railway Express. To them, the service as it operates now is com-pletely uneconomic. For the bulk of their business they are not only competing against truckers and car forwarders, but against parcel post. (A test in 1948 showed that 79.6% of the agency's less-than-carload traffic weighed 50 lb. or less; the parcel post maximum is 70 lb.)

"It just doesn't figure," one railroad man said. "By parcel post, I can ship a 20-lb. package 150 mi. for 51¢. To send it by express costs me \$1.36. And all I get for that 80¢ or so extra is pickup service and insurance. You can't beat a government-subsidized service on that basis.'

There is no question but that each express-rate increase has driven more and more business away from the agency. Further, the railroads themselves have undercut the express operation by speeding up and improving their own l.c.l. business. "It all adds up," one mid-western rail official said, to express being left with the feathers and innards, while the drum sticks and breast go to parcel post, the freight forwarder, and the trucker."

• What to Do?-Just what sort of scheme the railroads will come up with to end the famine is anybody's guess. Many plans have been talked about over the table, but none has yet become a formal proposal. These are some that have been outlined:

· Clear out of the parcel-post field and leave the handling of small packages to the government. The express agency would concentrate on an ex-panded and improved merchandise freight service, catering to special demands and offering special service.

· Break up the agency as it is now, and split it into two or possibly three divisions serving the northern and southern gateways. Accept small shipments, but make rates high; concentrate on merchandise freight service. Use the division setup to simplify administration-particularly the apportionment of costs and revenues.

· Disband the agency completely. Combine pickup and delivery service and handling of small shipments with special freight operations. Combine passenger baggage with special freight,

· Change nothing, except maybe

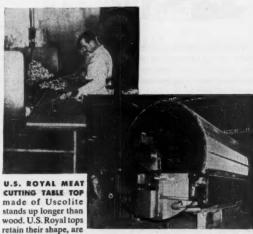
a few contract provisions.

• ICC's Say-Whatever the railroads decide, though, will have to come up before the Interstate Commerce Commission because Railway Express is a common carrier

Right now, the feeling in Washington is to keep quiet and sweat out some sort of compromise. This wait-and-see policy is also affecting the government's antitrust action against the agency,

What's U.S. Rubber doing with Plastic Pipe?

Giving it extremely high impact strength, for one thing. A single .44 cal. revolver bullet, fired at a distance of 20 yards, merely dented this piece of pipe, which is made of U.S. Rubber's new plastic, Uscolite. This amazingly strong, lightweight, versatile piping is easy to handle, won't break if dropped. Furnished in standard lengths, it can be cut to length and threaded on the job. Uscolite is resistant to most chemicals. For more information, write to address below. In Canada, write to the Dominion Rubber Company.



THIS CONKEY FILTER, part of the sanitation system of a midwestern city, is equipped with Uscolite piping. Uscolite handles corrosive acids, alkalies, salts.

UNITED STATES RUBBER COMPANY

easier to clean

We'll build it ... you run it!



Mississippi offers proof that your dollar will go further for an industrial operation in "America's Number One State of Opportunity." The proof of this is the fact that no initial investment for plant sites and buildings is necessary for desirable industries under the state's exclusive BAWI plan.

This plan authorizes political subdivisions to vote bonds to purchase sites and erect buildings for new and expanding industries. Many incoming new industries, large and small, are finding that this initial savings in plant cost

releases more of their dollars for equipment and operation.

No matter what you manufacture you will find that under BAWI you can operate in a tax-free building successfully with less investment.

In addition to the financial benefits, you can also count on ready assistance with your problems from the Agricultural and Industrial Board, composed of non-paid business, government and professional men. This board is anxious to help you make your industrial venture a success in Mississippi. For more specific details on Mississippi's industrial growth, write for "Inside Mississippi."

For Specific Information As to How Mississippi's BAWI Plan Can Provide a Building and Plant Site for Your Industry . . . Call or Write

NDUSTRIAL BOARD AGRICULTURAL AND Jackson, Mississippi State Office Building

which started a year ago. Justice Dept. then charged that the agency-railroads contract never had ICC approval, and that the agreement is in restraint of commerce. ICC, however, has since said it approves the contract.

Whether the government would let Railway Express pull out of the smallpackage field is doubtful. The idea was proposed a couple of years ago by one of the ICC commissioners, J. Haden Alldredge. The plan brought nothing but scorn from the Post Office Dept. Their line then was: "We have an \$84-million deficit on parcel post as it is."
In any drastic change in Railway Ex-

press, one thing seems certain. Railroads all agree that agency employees won't be out on the street. They'll be assimilated into other railroad jobs

somehow.

Meat Freight Rate

New increases have wiped out gains western packers won by rate changes in the 40's. They are asking ICC for help.

Western packers have reopened their fight for a bigger share of the rich eastern meat market. Their petitions are on file this week with ICC for new rail freight rates which would wipe out the effects on them of blanket increases granted since 1946.

· Packed or on the Hoof?-Two-thirds of U.S. meat is eaten east of the Mississippi. But two-thirds of the livestock is raised west of the Mississippi. That means that at least half of the livestock raised in the West must be shipped east.

Somewhere along the line, that live-stock must be converted to meat. Where, is the question that most concerns western meat packers. The answer depends upon costs-largely freight

Before 1940, it was definitely cheaper to ship a steer on the hoof than to ship an equivalent amount of beef already packed. Western packers can absorb the difference, if it's not too great, and still sell competitively with eastern packers. They can make up part or all of the difference by saving on the loss from shrinking and bruising of livestock caused by long hauls.

The Big Four packers have never been much bothered by this problem. They have plants in most sections of the country and thus profit wherever slaughtering is economical. It's the independents that worry.

• Close the Gap-For years before the war, western packers had to sit back and watch meat for eastern consumers move on the hoof to packing plants in Chicago and farther east. Then Denver

independents, spurred by Denver Union Stockyards Co., began looking for a way into the eastern market. They pressed ICC to cut freight rates on prepared meat relative to live animals. From 1940 through 1946, they won a series of rate adjustments. To do business direct with New York, Denver slaughterers had to price their fresh meat f.o.b. the packing house at only \$\frac{4}{9}\epsilon\$ per lb. cheaper than Chicago packers. It was the toe-hold they had been looking for. Denver slaughter jumped from 175,000 cattle in 1940, to an estimated 400,000 in 1950.

But the last of these rate cases coincided with the first of three postwar blanket freight rate increases granted by ICC. In their dollars-and-cents impact on freight costs, blanket increases are like a game of crack-the-whip roughest on those at the end of the

• Deeper Cuts—In order to meet competition in New York, westerners had to absorb the increased freight rates by cutting their f.o.b. price still further relative to Chicago. The amount of the cut depended on how far west they were. Where 5¢ per cwt. below Chicago sufficed to meet freight costs in Madison, Wis., in 1946, 9¢ was required by 1950. The 66¢ per cwt. margin which had been necessary in Denver widened to \$1.07. Here's how Denver rate analysts figure the margin below Chicago, required to meet freight costs, has widened in nine cities:

	1946	1950
Madison, Wis	 5é	9€
St. Louis	 8	13
Waterloo, Iowa	19	31
Austin, Minn	 24	39
Omaha		62
Wichita	 47	76
Oklahoma City	 53	83
Fort Worth		1.02
Denver	 66	1.07

This has practically put Oklahoma City, Fort Worth, Denver and other packing points close to the continental divide out of the eastern market, the Denver group says. They estimate their own plants could have sold from \$8,000,000 to \$10,000,000 more meat in 1950 if they had been able to retain the 66¢ margin.

• Trucking West—Packers close to the continental divide are at the ends of two long freight hauls—one east, the other to the Pacific Coast. Some have kept a toe-hold in the Pacific Coast market by switching from rail to refrigerated trucks. On the Coast, the trucks are loaded with fresh vegetables, fruit, sea-food or anything that requires refrigeration. This two-way haul has cut freight costs below railroad rates, according to the packers. They'd do the same thing going east, but so far they have not been able to find products for the backhaul.



PORT EDWARDS, WISCONSIN

DOES

YOUR

INDUSTRY NEED

LARGE
QUANTITIES
OF
CONSTANT
TEMPERATURE

WATER?

(53°, approx. the year round)
A wonderful underground water
supply—estimated at more than
A BILLION ACRE FEET—is easily
and cheaply available to NEBRASKA
manufacturers along with

- LOW TAXES
- LOW-COST POWER
- ABUNDANT NATURAL GAS
- HIGH-GRADE LABOR
- **EXCELLENT TRANSPORTATION**

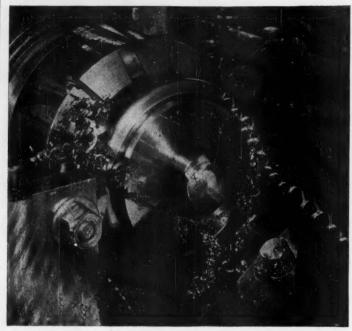
plus a generally wholesome, conservative attitude throughout the state—evidenced by a pay-as-we-go policy, no state debt whatever, and a state government bent on helping industry (not hindering it).

For detailed information, write this department of State government:

DEPT. BW-26

NEBRASKA RESOURCES DIVISION STATE CAPITOL BLDG., LINCOLN

PRODUCTION



MACHINING METAL is a basic-and expensive-job. Now there's a new theory on . . .

The Way to Cut Metal

A new concept is revolutionizing metal-machining—the theory that machinability is tied to a metal's microstructure. Production tests prove technique is faster, cheaper, and tools last longer.

Cutting metal is a basic job in industry, perhaps the basic job. And it's one of the most expensive operations. Machinery and cutting tools are costly; workers must be skilled.

For years, engineers have concentrated on improving machine efficiencies and on developing better cutting tools and better cutting techniques.

• Inside—Now the experts are drumming up a new concept, one that promises to revolutionize the metal-cutting industry. It approaches the task from a new angle—the inner setup of the metal to be cut. The heart of the theory is that the machinability of a metal depends on its microstructure—the physical arrangement of the metal's constituents as seen under the microscope. For some metals, microstructure isn't something that's fixed for good and all. You can change it by heattreating before machining.

It's a theory that means faster machining, lower costs. It may mean scrapping the old rules of thumb that have governed the choice of cutting speeds. In fact, it may change your whole operation—from design to buying practices.

• Savings—Even this early in the game, the experimenters have something to show for their pains. Ford Motor Co., which has done a lot on this development, can show results like this on its plant floor:

A rough forging for a gear pinion is turned in 23 sec. The single-spindle automatic lathe that does this has a 75-hp. motor. It works so fast that it takes a conveyor to drag away the chips. Two of these lathes, fitted with carbide cutting tools, now do the work that used to be done by 11 prewar multispindle lathes tooled with high-speed steel. The result is a better gear and a 48% saving in floor space. Cost per gear is lowered by about a third.

• Project Is Born-Work on the microstructure theory started a couple of

BUSINESS IN MOTION

To our Colleagues in American Business ...

This is Revere's Sesqui-Centennial Year. One hundred and fifty years of increasing business success is something out of the ordinary, even though there are a few companies in other industries as old or even older. This company dates back to 1801, the year Paul Revere started the first copper mill in this country, in Canton, Massachusetts. People usually think of him as a great patriot; he was also an artist and craftsman whose copper engravings and silverware are museum pieces today. In addition, he was a businessman, realizing that he could prosper only by offering better products and improved service to government, industry and

the public. In labor relations he probably was a pioneer, because he paid somewhat better than going wages, in order to enlist to the full the skills his business required. Few men of his time could equal him in vision and resourcefulness.

A spirit of inquiry, investigation, research, was one of his characteristics. Writing of his efforts to find how to work copper, he reports: "I determined if possible to find the Secret & have the pleasure to say, after a great many trials and considerable expense I gained

it." His eldest son, Joseph Warren Revere, who succeeded him upon his death in 1818, went abroad in 1804 to increase his knowledge by visiting the European copper fabricators. This was in all probability the beginning of research by any copper and brass company in this country. In addition, the Revere mill continued to make independent investigations. As a result, Revere became known not only as the preferred American source of copper and copper alloys, but of information about them. This was so outstandingly the case that when one of Paul Revere's friends, Levi Hollingsworth, saw a need for a copper and brass mill in Baltimore he asked Revere for advice, and was given it in full generos-

ity. It is interesting to note that years later the Hollingsworth mill in Baltimore became the nucleus of the present Revere operations in that city.

When you consider Paul Revere's remarkable combination of art, skill, business acumen, recognition of the importance of research, it becomes possible to understand how a business so firmly founded could come down to today, larger than he ever imagined, and in proportion to the size of the country, just as important as it was in his own day. He was one of a number of men who put the United States on the path to greatness, not only politically but industrially.

As we look about the present Revere organization we find close links with the past, complete contact with the present, and great future promise. We are not only in copper and its alloys, but have been in aluminum alloys since 1922. More recently, we began to make Revere Ware, copper-clad stainless steel cooking utensils, now serving in American homes everywhere. Applied research, working as did Paul Revere but with greatly improved methods, continually uncovers new pros-

pects for the future. In personnel, it has always been a Revere principle to give enthusiastic aggressive and capable youth its chance as well as its training. Thus we are old and experienced, but ever new and imaginative. In this our Sesqui-Centennial Year we give tribute not only to those who have helped us grow since 1801, but also promise a continually increasing measure of future service.

And while we mark our 150th Anniversary we do not forget that the brass and copper industry, now including a number of venerable and honorable companies, joins with us in playing a vital part in American life. We are proud not only of ourselves, but of our entire industry.

REVERE COPPER AND BRASS INCORPORATED

Founded by Paul Revere in 1801

Executive Offices:

230 Park Avenue, New York 17, N. Y.



Current events in plastics

A flick of the wrist and your electrical circuit is restored—with Federal's flexible Quicklag Circuit Breaker units. Typical of modern products or parts for home or industry that now can be made better, more economically with Monsanto's Resinox phenolic.

Examine the intricacies of this unit housing. Yet it was produced quickly in *one* low-cost operation. No special machining or finishing or assembly was necessary.

For many applications, Resinox provides a combination of performance characteristics superior to any other type of material: excellent insulating properties, high dimensional stability, heat resistance, low cost, and many others.

Resinex is just one material in Monsanto's large family of plastics. Whatever your product—chances are there's a Monsanto plastic best suited to help you make it better... at lower cost. For new plastics application ideas, send for your free copy of Monsanto's booklet, "Idea Generators." Write to MONSANTO CHEMICAL COMPANY, Plastics Division, Room 1201, Springfield 2, Mass.



"By side-stepping HABIT-TIIS" and conventional materials, we cut production time and costs to a minimum with fast, one-shot moldings of Monsanto Resinox phenolic"—M. Putterman, Supervisor, Molding Department, Federal Electric Products Company, Newark, N. J.

*HABIT-ITIS—def.—habit thinking; following familiar patterns of action from habit.

another in the



MONSANTO family of plastics

SERVING INDUSTRY... WHICH SERVES MANKIND



MICROSTRUCTURE of a medium "pearlite" iron, magnified 500 times. Stripes of ferrite, or carbonfree iron, are separated by black stripes of iron carbide, a much harder constituent. The location and size of these stripes make this specimen hard to machine, also shorten tool life.

years ago with a research project sponsored by the Air Force. Some metallurgists had been convinced that the machinability of heat-treatable irons and steels is tied to microstructure. But they had no large-scale tests to back their theory up.

The Air Force put up \$100,000, and in the summer of 1948 asked Ford to look into it. R. T. Hurley, now president of Curtiss-Wright, was then director of manufacturing engineering at Dearborn. He took charge. He knew his business: As former president of Bendix Aviation, he had had considerable experience in metallurgy and manufacturing engineering. Curtiss-Wright has put the test results in book form.

Ford was keen about the idea. After all, anything that had to do with machining would apply to auto production

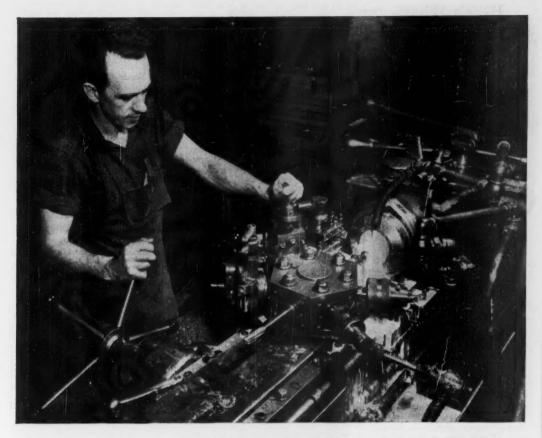
as well as to armament.
• Divided Work-When Hurley transferred to Curtiss-Wright in 1949, he

took the Air Force contract with him. But Ford kept at its work. Then Metcut Research Associates, Cincinnati, and Massachusetts Institute of Technology took it up—all under the overseeing eye of Hurley.

The materials they worked on were steels, east irons, and high-temperature alloys. The target was a severely practical one. What the researchers wanted was to study machining and tool wear under normal production conditions, not long-hair laboratory stuff. The Ford plant at Dearborn can testify that they got what they were after.

I. Cast Irons

The researchers established "machinability indexes" for cast irons, based on the microstructure of the iron to be cut. They arbitrarily set an index of one for the tough pearlitic irons, which are hard to cut—even with carbides. From there, the index ranged up to 20

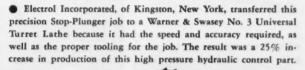


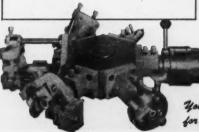
PICTURE OF A MAN PRODUCING 25% MORE

Same job, same operation,

But Better Tools!

This shop has found it can do more jobs faster on Warner & Swasey Turret Lathes with the Standard Tooling Setups that fit their requirements. Multiple and combined cuts, with shorter setup time, mean profitable production increases.





Permanent Universal Tooling setups and the right tools which can help you increase your output are all in the new 194 page Warner & Swatey Tool Catalog. Write for your copy.

You can machine it better, faster, for less...with a Warner & Swasey



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Steel Age

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so easily ... so long!



THE suspension is the sturdy heart of every Steel Age Grade A File. It's built of heavy steel channels for extra years of service . . . equipped with eight ball bearing rollers for silkensmooth, finger-tip operation . . . designed so the entire drawer is accessible when fully extended. You'll discover these advantages spell easier, faster, more efficient filing in your office. Better see these great Steel Age files at your dealer's soon!



- * 8 ball bearings for smooth action.
- ★ Welded construction for perfect drawer alignment.
- * Heavy steel channels for durability.
- * Cross-tie members for extra strength.



At Leading Office Furniture Dealers from Coast to Coast

CORRY-JAMESTOWN
Manufacturing Corp. Corry, Pa.

for an iron fully softened by heat treating. This means that the life of the tool that cuts the soft iron is 20 times that of the tool that cuts the pearlitic iron when machining is done at the same speed. Once you know the microstructure and the machining index, you can preset optimum machining rates for various metals.

Let's say you want to mill an iron casting. The researchers established that you can machine a fine-grained pearlitic iron at 300 ft. a minute. But maybe the product doesn't need that hard an iron; maybe a soft, ferritic iron will do. You could anneal (by heattreat) the iron to soften it—thus altering its microstructure—and lift your milling speed to 1,500 ft. a minute.

• Heat Treat—The trick to get the

• Heat Treat—The trick to get the microstructure you want lies in the use of adequate heat-treating processes before machining. Various processes work, but Ford has found that salt-bath annealing gives good results. A shift from conventionally treated forgings to salt-bath annealed material increases parts production between tool grinds, Ford says, because microstructure is altered to a more machinable type. After machining, the part can still be heat-treated again to develop strength.

II. Steel

Or take the case of steel.

In the first place, the researchers discovered that slight variations in the microstructure of a steel have a profound effect on the life of the tool that cuts it. It was definitely proved that if you want your tool to last, the microstructure from piece to piece has to be consistent. That's the more important since different steels have different microstructures; even steels of the same type will vary.

New Guide—Up to now, machining rates for steel have been based mainly on the hardness of the material and on plant experience—a sort of trial-and-error business.

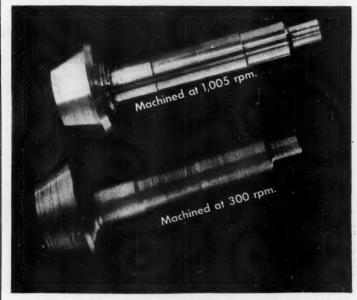
Now the researchers believe that once the microstructure of any piece of steel has been determined, the relationship between tool life and cutting speed becomes fixed, regardless of the composition and hardness of the steel. Know the microstructure of the piece you're cutting, and you know the cutting speed that will give you the best tool life.

If this theory stands up, the normal procedure of setting speeds and feeds by composition and hardness may be impled

III. Theory in Practice

To make the microstructure concept work is no one-man job. Engineers, metallurgists, and production engineers all have to get in on it. Metallurgists can pool their knowledge of how forging, casting, and rolling practices affect microstructure. They can also tell what additional heat treats will be needed to get the right microstructure for best machinability.

The production men know about



OLD AND NEW: Using best steel structure and high-speed equipment, Ford makes gear pinion at 825 ft. a minute. Conventional method: 245 ft. a minute, three times the cost.

cutting materials, processes, and equipment. Design engineers can contribute with ideas that simplify manufacture.

Using this teamwork approach, Ford cut down machining time on one part by 70%, reduced floor-space requirements by 80%.

 Overhauling—In other words, the microstructure theory changes more than your machinery operation. It may mean a new system of materials handling. It may mean the installation of "automation devices" (BW—Oct.23'48, p70) to load and unload machines for speeded-up processing.

It may change buying practices, too. Instead of ordering forgings, castings, or bar stock to material specifications, it may pay a plant to buy on a micro-structure specification. Or it might pay to install heat-treating equipment to process incoming material to the right structure.

PRODUCTION BRIEFS

Diversification of chlorine production with products that use the chemical as a base is being developed by Pittsburgh Plate Glass Co.'s Columbia Chemical Division. Columbia's current project is a plant at Natrium, W. Va., for making benzene hexachloride, a basic ingredient of insecticides.

A steam-generator car that supplies the heating (or air-conditioning) equipment of a 22-car train is being used by Texas & Pacific Ry. It was designed by T&P to boost steam capacity of diesel freight engines, when passenger diesels aren't available for passenger trains.

A glass-fiber filter paper 5,000 times more effective than conventional papers has been developed by the U.S. Naval Research Laboratory. Glass fibers, ½0th the thickness of a human hair, are woven into a paper that is fungus proof and electrically resistant. The lab has already made successful large-scale mill runs of the paper.

Neutron bombardment from a cyclotron gets a trick application printing photographs at Westinghouse Electric Corp.'s research laboratories. After a piece of print paper is exposed to a negative, neutrons make the silver coating in the photographic image radioactive. The radioactive coating, in turn, prints the picture on other pieces of paper.

General Electric is tripling its space for the production of J-47 jet turbine engines at Lockland, Ohio (BW-Nov.4 '50,p61). The plant, which formerly assembled the engines through subcontracting, will also manufacture parts.



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Shouldn't happen. Can't happen when simple McBee controls give you a running record of every single phase of operation.

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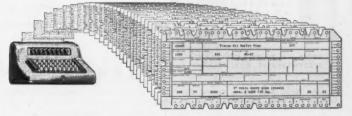
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provide you with accurate and useful management controls at less cost
than any other system. When
notched, the pre-coded holes along
the edges of the Keysort cards make
it easy to collect a wealth of data...
classify it...summarize it...file it
...find it...use it...quickly and
accurately.

Which explains why McBee sales have multiplied sevenfold in just a few short years.

There's a McBee man near you. He's trained to advise you frankly whether or not McBee can solve your particular problems. Ask him to drop in. Or write us.



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70 tons of cement dust—that's the amount added to the daily output of one large cement plant because it installed electrostatic precipitation apparatus in 1912. Today, similar installation are recovering millions of dollars worth of valuables every year.

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General Electric produces a complete range of power supply equipment and accessories for electrostatic precipitator manufacturers. For maximum reliability, specify G-E components and power units in your industrial, commercial, or residential units.



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GENERAL & ELECTRIC



A MAGNIFYING LENS helps a North American machinist check the hair-sized holes of an air-bearing race. A head mill drills the holes. Smaller parts are made on jewelers' lathes.



BALL BEARINGS use liquid instead of air lubrication. So technician primes a hypodermic with a special oil. Another inspects the job with a microscope.

Tricky Work at North American

Steering controls for guided missiles involve use of airlubricated bearings, machining under a microscope, hand polishing of surfaces.

"Fussy" is the word for work turned out by aerophysicists at North American Aviation, Inc. Compared with the tiny parts made there for the steering devices of guided missiles, the works of a watch look like a coffee grinder. Jewelers' lathes, magnifying glasses, and dust-free clothing are standard equipment around North American's machine shop.

Probably the touchiest part of all is

the air bearing. That's the axis on which a gyroscope rotates. The lubricant of the bearing is a film of air that has a thickness of only 1/1000 in. The air bearing acts as a float or a cushion for the gyro; its initial friction is practically nonexistent.

To force compressed air into a bearing, a machinist drills a series of holes through the race, or channel, in which the bearing runs. The holes are tiny—



Look North in '51

TO A GOOD NEIGHBOR . . . A RICH MARKET . . . AND A CHALLENGING OPPORTUNITY*

he frontier for U. S. business today lies well beyond the Canadian border. Great as the opportunities for expansion in Canada have been, they are even greater now.

Newly found resources, the recent freeing of the Canadian exchange rate, removal of import controls, and joint U. S.-Canadian industrial mobilization all point to a greatly widened horizon of economic and trading relations between the two countries.

But Canada is a challenge, too. The U. S. businessman needs to know *all* the factors that affect his Canadian markets.

This knowledge of Canada is right at hand

. . . freely available at Canada's first bank.

That bank is the Bank of Montreal. It has more than 550 branches from coast to coast. It provides businessmen, both Canadian and American, with up-to-the-minute information on local conditions and nationwide trends on finance, marketing, supply and labor.

Since 1859, when its first U. S. office was established, the B of M has been a leader in the development of U.S.-Canadian trade.

Consult any of our U. S. offices, or the Business Development Department, Bank of Montreal, Place d'Armes, Montreal. There is no obligation . . . except to yourself.

* Canada—with a population of less than 14 million—has a gross national product of over \$17 billion, a consumer market of over \$11 billion, annual imports exceeding \$2½ billion, exports over \$3 billion
. . . Canada—best customer and No. 1 supplier of the U. S.



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	supproximatory



DUST-FREE ROOMS house the assembly lines for gyros. Personnel must wear dustless nylon caps, smocks, and shoe coverings.

too small to be seen by the human eye. So the machinist does the drilling job with the help of a magnifying lens. Just how the air is forced through these holes with sufficient pressure to support the gyro is a military secret.

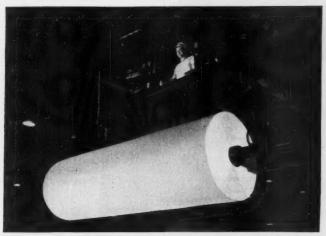
• Balance—The balance of North American's gyros is pretty close to perfect. Weighing several pounds, and spinning at 36,000 rpm., a gyro rotor is only out of balance by an amount equal to one-third the weight of a pin head. Once the balance of a bearing is checked, the whole works is hermetically sealed in the dustproof atmosphere of the aerophysics shop.

To cut down heat and power consumption, air is pumped out of the gyro chamber. After a final recheck on its balance, a gyro is ready for installation in a guided missile. It senses the drift of its missile in flight, and sends the error to a servomechanism that corrects the controls of the missile.

• Problem—Before North American could swing into production, it had to be sure that it had a foolproof method of checking the balance of its gyros. And that raised a problem, because a spinning gyro stays in the same position while the earth turns under it. The aerophysics people needed a mechanical reference point that would remain stationary with respect to the stars. So they built up an instrument, an equatorial mount, that stays "flat." In effect, the mount nullifies the operation of a gyro to be checked. That way, they measure a gyro's drift, balance, and friction, despite the carth's rotation.

In Kimberly-Clark paper-making-

79 Quality Checks Mean Finer Printing for You!



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As an aid in imparting the proper surface to all
Kimberly-Clark papers, only soft, white clay of
face powder texture is used in the coating
formulation. And now, a finer balance of coating ingredients gives this paper the smoothest
printing surface in Kimberly-Clark history.



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Before choosing any printing paper — Look at Kimberly-Clark coated papers

New HIFECT* Ename!—with sulphatecooked fibers added, permanence, foldabiiity, dimensional stability make Hifect ideal for covers or any fine letterpress printing.

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• Install R & M All-Weather Motors where it's dusty or damp—outdoors, without a cover—anywhere you wish! They're protected from rust, corrosion, and insulation damage—our finest standard integral motors in over 50 quality years. Get the big money-saving story. Ask for fact-filled Bulletin B400W.

ROTOR



A special rustinhibitor covers entire armature and shaft,

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Complete body, with stator, is dipped in "Robbinite," and this moisture-resisting undercoating—developed by Robbins & Myers—is baked on.

CAST-IRON PARTS



End-heads and terminal box receive the same anti-corrosion treatment often specified by our Armed Forces.

Terminal box is gasketed. Lead-ins are sealed against leakage at shell. Repellent grease on shaft keeps moisture away from bearings. Shrouded end-heads give full-height protection. Many other fine features.

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NEW PRODUCTS



Easy TV Tube Test

Testing TV picture tubes is a bottleneck for the distributor. He has to unpack the tubes and set them up for testing. And if the testing equipment isn't accurate, returns and rejects of good tubes can occur. Precision Apparatus Co., Inc.'s solution to these problems is an instrument, called Model CR-30, that will test cathode-ray picture tubes while they are in the shipping cartons. It will also test them in set-up condition.

CR-30 checks picture brightness while the electron gun is operating; it also tests over-all tube condition. There's a geared roller-tube chart for setting CR-30 to the type of tube being tested. The test circuit itself works from factory-set calibrating controls. CR-30 has telephone-type wiring and aluminum paneling. The case is portable, comes with a hinged, removable

• Source: Precision Apparatus Co., Inc., 92-27 Horace Harding Blvd., Elmhurst, N. Y.

• Price: \$99.75.

Bulk Orange Squeezer

Tubular Aircraft Products Co.'s Fresh Maid Orange Juice Extractor squeezes up to 24 oranges a minute. It's designed for restaurants, food stores, and other bulk users.

The machine is about 5 ft. high, with a base 3½ ft. by 2 ft. It weighs 400 lb. The outside is stainless steel and aluminum alloy. Inside, there's a ½-hp. gear-reduction motor. Next to the machine is a hopper for holding oranges. Cups attached at intervals to a moving chain lift individual oranges out

and drop them to a tiny ramp which feeds the oranges into mechanical knives that cut them in half. Finally, they're squeezed automatically. A strainer separates rinds and seeds from the juice. A pump also is available if you want to pipe juice to a serving counter.

Source: Tubular Aircraft Products
Co., Los Angeles.
 Price: About \$1,000, or on lease.

Dollars Come Easy

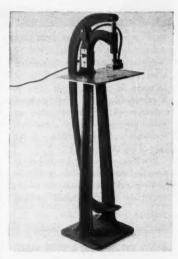
Continental Cashand Co.'s device for cash drawers, called Cashand, helps cashiers handle money faster. It fits almost any bill compartment.

almost any bill compartment.

Cashand is a tiny platform, the size of a dollar bill, that's set on two springs. Flanges project over this floor on three sides. As you insert bills, the platform depresses, but the springs underneath force the edges of the top bill against the three flanges that lap over. The front end of the platform flares up; thus you can tell the number of bills you have, and lift them out quickly one by one or in a stack. Cashand is also supposed to keep bills from sticking together. There's an adjustable screw for easy installation.

• Source: Continental Cashand Co., 627 Grove St., Evanston, Ill.

· Price: \$4.95.



Quick Garment Labeling

Sewing cloth labels on garments takes time. One solution is putting on plastic-coated labels with an ordinary hand iron. Now, Press-On, Inc. has a

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1851 A SERVICE INSTITUTION 1951



senger service, are symbols of progressive railroading. Improved service is offered traveler and shipper with higher speeds, greater loads and dependable schedules. To supply such service and still operate at a profit, railroad equipment must be sturdy and tough . . . free from frequent break-downs and high maintenance costs.

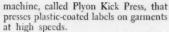
In diesel powered locomotives only the best materials are used . . . which in the case of steel under stress means "forgings." Only forgings offer the equipment builder the long-service, trouble-free qualities for day-after-day, high speed operation.

Kropp Forge, America's Number One Forge Plant, supplies parts used on many crack trains and famous streamliners. Leading locomotive and car builders know that Kropp quality forgings can be installed and forgotten.

Write, wire or phone your inquiries . . . on modern forged parts for modern equipment.

KROPP FORGE COMPANY 5301 W. Roosevelt Rd., Chicago 50, III.

Are you receiving "FORGINGS"... the KROPP publication for industry? If you want to keep current on forging facts, send us your name and address and ask for "FORGINGS".



The machine is about 4 ft. high, weighs 80 lb. There's a flat bed on which you rest the garment, a 2 in. x 3 in. pressing head that's electrically heated, a foot-pedal lever, and a thermo-static control. The machine plugs into an ordinary electric outlet.

The operator puts a garment on the bed, places on it a label backed with a thermoplastic coating, called Plyon. Then, she pushes the foot pedal. The pressing head lowers against the label and sets it. When released, the pedal returns automatically to its original po-

Fastening labels by this system takes only two seconds per label, according to Press-On, while sewing on labels takes 16 seconds on an average.

- Source: Press-On, Inc., 3462 Grand Concourse, New York City 57
- Price: About \$200 for machine.
- · Availability: Three months.



A Pallet You Can Pack

A collapsible pallet made by Spring Wood Products Co. folds into a tight, space-saving package for reshipping to the manufacturer. It also adjusts to fit almost any size piece of equipment that it has to support.

When extended, the pallet is X-shaped. The legs of the X pivot where they cross, so that the spread or supporting area of the pallet can be adjusted from square to oblong. The center pivot has an eccentric locking lever that holds the legs in any position you set them in.

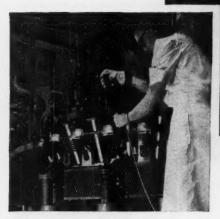
The pallet has four identical legs. Each leg is made of two equal lengths of board with a space between into which the forks of a lift truck can slip. When collapsed, the pallet legs close together, forming two parallel strips of board.

· Source: Spring Wood Products Co., Geneva, Ohio.

• Price: \$4 to \$5.

Modern crystal-gazers

consult a little bottle of DPi High Vacuum



DPi diffusion pumps, quickly creating vacuum one-billionth of atmospheric pressure, permit Waterman Products Co., Inc. of Philadelphia to mass-produce inexpensive oscilloscopes.



high vacuum research and engineering

 B^{RAIN} WAVES, pictured on the face of an inexpensive cathode-ray oscilloscope, now make possible safe, automatic control of the depth of anaesthesia in surgical operations.

Banks of the same instruments warn steelmakers of sudden, dangerous rises of temperature in their crucibles. Oil prospectors set off small explosive charges and study the pattern of oscilloscope traces of the reverberations for geological structures that pay off. Oscilloscopes help the repairman adjust your radio and picture the strains in a locomotive, a skyscraper, or a helicopter.

They are finding such diverse uses because they are now reliable, long-lasting, and cheap. For this, oscilloscope manufacturers credit much to DPi equipment that makes possible higher and higher vacuum at less and less cost.

DPi high vacuum metal-coaters have given the plastics industry new materials to stimulate its markets. New horizons in metallurgy, dehydration, and impregnation are being opened through DPi's experience in high vacuum technology. If high vacuum enters into your problems, we'd like you to write us about them. *Distillation Products Industries*, Vacuum Equipment Department, 739 Ridge Road West, Rochester 3, N.Y. (Division of Eastman Kodak Company).





This H & D corrugated display box makes barbeques extra fattening — for sales figures!

The customer is "just looking for a fork to roast hot dogs"—
until she spies this gay yellow and black display, with its clever
Hamburgrill and its Cube Steak Broiler. Then her picnic
menu suddenly expands beyond "just wieners"—and sales figures
expand beyond "just forks for roasting hot dogs."

H & D package action can increase profits on *your* products, too, by such grouping of related items for tie-in sales, or by giving better display . . . providing secure protection . . . increasing multiple sales. Write for H & D's 11-volume "Little Packaging Library." Hinde & Dauch, 5101 Decatur St., Sandusky, Ohio.



FACTORIES IN: Baltimore • Buffalo • Chicago • Cleveland • Detroit • Gloucester, New Jersey • Hoboken, New Jersey • Kansas City, Kansas • Lenoir, North Carolina • Richmond, Virginia • Sandusky, Ohio • St. Louis • Watertown, Massachusetts. Offices in principal cities.

NEW PRODUCTS BRIEFS

A furniture wax, called Pride, is S. C. Johnson's home version of its Car-Plate automobile wax. Only wiping—no rubbing—makes it shine. Price: \$1 a bottle.

A window fan made by Hunter Fan & Ventilating Co., 400 S. Front St., Memphis, Tenn., reverses direction of rotation at the flick of a switch. Advantage: better control of ventilation.

A rubber band for housewives who put up their own frozen foods keeps its snap at subzero temperatures. It holds protective covers on food containers during the freezing process. The manufacturer is B. F. Goodrich.

A spray gun, called Dupli-Color Touch-Up Spray Gun, has a 6-ft. hose and air connector, works from any air source with up to 35 lb. pressure. Made by Dupli-Color Products Co., Inc., Chicago, it retails for \$2.98.

A fire extinguisher developed by the Army Engineer Research & Development Laboratories, Fort Belvoir, Va., is used once, then thrown away. It weighs 1 lb. empty, carries a 3-lb. charge of trifluorobromomethano, a new extinguishing agent.



Plastic Bib Saves Finish

This oversized napkin, made of Goodyear Vinylfilm, keeps car finishes and upholstery clean during repairs. It's also useful for picnickers and painters. Goodyear says the cover is waterproof, lightweight, hard to scratch, and easy to clean. Spilled paint flakes off easily. Developed by Industrial Covers Co., Akron, Ohio, the cover is priced at \$2 for 3-ft. x \$\frac{1}{2}-ft. size. \$2.35 for 3-ft. x \$\frac{1}{2}-ft. size.

STEEL

Steel Beats Its Capacity Goal

Industrywide expansion plans now far exceed the 109-million ton target set a few months ago. New programs may hike ingot-producing potential to 115-million tons by end of 1952.

Steel companies are on a multibillion-dollar expansion spree. Enough new tonnage is coming in to boost steel capacity far beyond the 109-million ton goal announced by the American Iron & Steel Institute several months ago. The ingot-making potential before 1952 ends may be around 115-million tons. That's 15-million tons more than the industry's rated capacity at mid-1950.

 Revising Upward—The latest burst of expansion started just after the Korean war broke out. In July, the institute announced that programs scheduled for completion by the end of 1952 would jack up the total to 105-million tons. Then, in October, a recheck raised the figure to 109-million.

Right now, you have to hike the total a third time-to upwards of 112-million tons. And there are programs in the making that can easily add another 3-million tons on top of that.

• Industrywide—Expansion during the past year and in the coming two years is spread all over the industry from U. S. Steel on down. Steel companies are not limiting their expansion moves to basic steelmaking, either. They are adding to their finishing facilities, also building more blast furnaces for making pig iron. But the simplest measure of what is being done is the increase in steelmaking apacity. Here is what some of the leaders are doing:

U. S. Steel-Capacity beginning 1950: 32-million tons.

Capacity now: 34-million tons. Capacity end of 1952: 36.5-million

The 2-million ton increase in the past year was largely in the Pittsburgh and Chicago districts. The new Fairless plant at Morrisville, Pa., will add another 1.8-million tons. Tennessee Coal & Iron will add 500,000 tons of new open-hearth capacity. And the Geneva works in Utah will boost capacity by 160,000 tons. By improving other facilities, Big Steel can take out about 200,000 tons more.

Rethlehem—Capacity beginning 1950: 15-million tons.

Capacity now: 16-million tons.
Capacity end of 1952: 16-million

The 1-million ton increase in ingot capacity last year winds up an expansion

program that Bethlehem has carried on steadily since the war's end.

Republic-Capacity beginning 1950: 8.7-million tons.

Capacity now: 8.97-million tons. Capacity beginning 1952: 9.47-mil-

When Republic's total announced expansion is finished, capacity will be 10.14-million tons-672,000 of the additional tons due to new facilities, the rest because of improvements on present plant.

Jones & Laughlin—Capacity now: 4.85-million tons.

Capacity end of 1952: 6.4-million tons.

Eleven new open hearths at J&L's South Side (Pittsburgh) works will add a net ingot capacity of 1.2-million tons. The company will also add two open hearths at its Cleveland plant.

National—Capacity beginning 1950: 4-million tons.

Capacity now: 4.5-million tons. Capacity end of 1952: 6.5-million

Construction programs of its subsidiaries, Great Lakes and Weirton, will hoist National's capacity to 5.5-million tons early in 1952. A new integrated mill to be built near Paulsboro, N. J., will add 1-million tons or more to that.

Youngstown Sheet & Tube—Capacity now: 4.1-million tons.

Capacity end of 1952: 5.2-million

Youngstown will build furnaces with 1.3-million tons capacity, improve old furnaces to add 195,000 tons, and discard obsolete equipment of 300,000-tons capacity.

Inland-Capacity now: 3.75-million

Capacity end of 1952: 4.5-million

Armco-Capacity July 1, 1950: 3.8-million tons.

Capacity end of 1952: 4.8-million

Sharon—Capacity now: 1.45-million tons.

Capacity end of 1952: 2-million tons. Pittsburgh—Capacity now: 1.07-million tons.

Capacity end of 1952: 1.56-million tons.

Pittsburgh is enlarging facilities at





Monessen. The expansion should be completed in 18 months.

Kaiser-Capacity now: 1.2-million

Capacity end of 1951: 1.38-million

Crucible-Capacity now: 1.15-million

Capacity end of 1952: about 25% greater.

Crucible is deciding the size of its expansion program now. Temporary plans call for a 20% increase in openhearth capacity, and a 30% hike in electric furnace capacity.

Detroit—Capacity now: 720,000 tons. Capacity end of 1952: 1.4-million

Granite City-Capacity now: 620,000

Capacity end of 1952: 1.2-million

Other expansions in the works include Allegheny Ludlum, which now has an 800,000-ton melting capacity and will add another 50,000 at Watervliet, N. Y. Alan Wood expects to lift its capacity from 550,000 to 600,000 tons this year; Timken will add electric furnaces to go from 550,000 to 625,000; Empire will add 75,000 tons to its present 370,000-ton capacity; Atlantic is adding 100,000 tons to its 165,000ton potential. McLouth Street is going up from 400,000 to 500,000 tons.

Few Alloy Fears

Supplies are tight, but Pittsburgh counts on switch to output of lower-grade steels to carry it through.

Defense demand for alloy steels piled on top of record peacetime usage is putting a tightening squeeze on the supply of the vital alloying elements.

Pittsburgh's steelmakers, however, are surprisingly unworried about the problem. All agree that alloys are tight. But none of them talks as if he were in real

· Remedies-Part of their apparent unconcern may stem from the fact that they have already taken several steps, which worked successfully in World War II, to handle the problem. One of them: production of NE (national emergency) steels as substitutes for other types of steels that use more scarce al-

A second step is the substitution of steels with the same alloys, but with smaller percentages of alloy. This, of course, depends on the customer's willingness to accept the lower grade.

· Manganese-There's one ferro-alloy used by all steelmakers-manganese. It is needed in both carbon and alloy steels. Two years ago, it was a pawn in an international chess game we were playing with the Russians. As we held off shipments of machine tools and other industrial machinery, they reduced their manganese ore shipments to token size. Russian exports to us dipped from 427,229 short tons in 1948 to 81,459 tons in 1949. But in the meantime we increased our take from other sources, principally India, South Asia, Union of South Africa, and the Gold Coast. Actually, inventories went up in 1949. So manganese is the alloy that least concerns steelmakers now.

• Shaky Nickel—Only those companies that make alloy steels are concerned with such alloys as tungsten, vanadium, nickel, molybdenum, chromium, cobalt, and columbium. Of these, nickel is probably the most pressing now.

There is a government-imposed cutback on civilian use of nickel during the first quarter of 1951 to 65% of last year's first quarter. But that doesn't tell the whole story. Actually, nickel is so scarce that a steel customer might as well forget about getting 3%, 5%, or 9% nickel grades for a long while.

One steel producer says all the nickel it has is going for DO (defense orders); it is the shortest alloy it has in stock. Another says it is being rationed on nonrated orders by its supplier to 40% of what it got in the first half of 1950.

Here is how supply looks on the other alloys:

Molvbdenum shouldn't be much of a supply problem since we import virtually none and can produce an awful lot. But the market for it is growing as demand grows for high-temperature alloys. There seems to be an artificial scarcity now, due to diversion to the federal stockpile.

Tungsten is a problem complicated because the Korean war has interrupted our normal imports from the Far East. The substitute ores from Bolivia and Brazil aren't so good as the Asian sup-

Cobalt is obviously very tight, since Washington has decided to start allocating all of it beginning Feb 1. This situation might be relieved if imports continue to improve and some substitutes are found.

Chromium is not considered in too bad shape at present, despite the fact it is another import Russia has embargoed. Imports now come mainly from Turler.

Vanadium is one of the alloys surrounded by considerable mystery. There have been no published figures on production or consumption since 1947, for security reasons. But it is mainly produced domestically, so that the supply is safe. In the same secret class is columbium. It's a new metal commercially. Nigeria is far and away the principal source.



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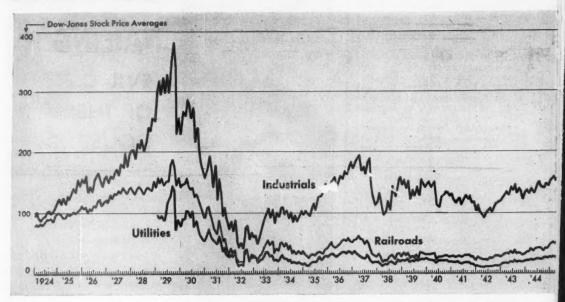
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FINANCE



Stay In," Say Bulls; "Take Profits,"

So far, the bulls have the best of the argument. And for the long haul, both groups are optimistic.

It is still too early to start cashing in on your current stock market profits. And even if you're speculatively minded, it's not too late to start buying. For in the months ahead, you can expect to see prices go even higher than they are

That's the confident prediction of Wall Street's leading bulls. They make it fully aware of one important market indicator which is causing some uneasiness in other Wall Street quarters. That's the recent zoom of the Dow-Jones industrial and railroad price in-Those indexes have already reached levels exceeded on the upside only during the granddaddy of all stock market booms-the wild price upsurge during the 20's.

· Right in the Past-The bulls' prediction is hard for the bears to counter. Most of the bulls' earlier market predictions have come true, including those that only a few months ago sounded like pure braggadocio.

In spite of all the substantial gains that stocks have already chalked up, the market seems to have been saving its strength. Recent Big Board trading sessions have put on the bravest show of strength since the current upswing

in prices began some 19 months ago. · Any Ceiling?-How high will prices go? You will get as many different answers to that as the bulls you ask. Estimates of the D-J industrial average peak for 1951 range all the way from 265 to 300-from 10% to 25% above the 242 average prevailing early this week.

That's a big jump, but most bulls don't expect it to come fast. They see the rise ahead as a long, gradual incline rather than an abrupt peak. And they expect it to be broken with occasional dips and valleys. Periods of price strength will be followed by periods of indecision and weakness while the market digests its earlier gains.

The bulls don't expect all stocks to share equally in the advance, either. Just as has been the case in the rise since June, 1949, some stock groups, say the bulls, are going to do much better than the average, some much worse.

I. Factors for Optimism

What's the basis for all this optimism? Various factors, among the most important of which are:

- The prospect of more inflation.
 Faith in '51 as a better earnings

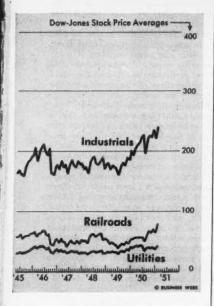
and dividend year than the bears expect.

- · Beliefs that most stocks are still "cheap" in relation to their book value, earnings, and dividends.
- The demand-supply factorwhich, to the bulls, indicates a plethora of funds available for buying stock.
- · More intelligent buying, which lately has strengthened the market.

Take the factor of corporate sales and earnings. E. F. Hutton & Co.'s Gerald M. Loeb, long recognized as one of the Street's brighter market and business students, thinks that 1951 over-all per-share earnings on the 30 stocks comprising the D-J industrial average will not slip much more than 14% under their record-breaking 1950 level. He doesn't expect dividends to contract more than 10%. What's more, he expects both earnings and dividends on those issues making up the rail and utility averages even to show some increase, thanks to their favorable treatment under the new excess profits tax law (BW-Jan.6'51p86, Dec.24'50,p52).

Other recognized market authorities are optimistic about the earnings future, too. Standard & Poor's has just announced that "investors are likely to be pleasantly surprised by the moderation of the 1951 decline in corporate

As Standard sees it, 1951 profits after



Say Bears

all taxes may run in the neighborhood of \$20.2-billion. That would be only some \$800-million under their 1950 level, only \$700-million under 1948.

On this basis, stocks would still look cheap at present prices.

II. As the Bears See It

Not all market students are willing to accept that thinking—not yet. They see too many potentially unfavorable factors to warrant such assumptions this early—important factors such as:

 The possible wholesale application later this year of price controls with only partially effective wage freezes a squeeze.

The likelihood of a further increase in both corporate and personal tax rates.

 The pinch on profit margins that likely will result when war orders really begin to flood in and civilian production is restricted.

 The unfavorable effects of the firmer controls on consumer credit and home building.

 Further restrictive controls that may come out of the Federal Reserve Board's anti-inflation program.

• The drop in worker productivity that has always come in wartime.

• Challenge-Both Loeb and Standard & Poor's claim that in working up their



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1951 earnings estimates, they made sufficient allowance for such factors. But the less-optimistically minded challenge their estimates. They are by no means convinced that these profit-damaging factors can be offset by increased sales, by the savings in costs inherent in long. uninterrupted production runs, and by spreading the overhead burden over larger production.

The bears also think that the bulls haven't taken into account the fact that the economy is only now entering the "tooling up" stage, that the tremendous war production program counted on to do so much to hold up this year's earnings is still a long way from getting under way. And the most pessimistic bears fear that in the gradual changeover from peace to war production, earnings of many companies are likely

to suffer considerably.

· Cheap?-Because of these factors, the bears claim that it is silly to say that stocks generally are "historically cheap" in relation to earnings and dividends. That will be true, they say, only if 1951 earnings and dividends approximate those of 1950. It leaves the bears cold to be reminded that even now stocks in the D-J industrial average are selling for only some 10 times earnings, and that they sold for 19 times earnings at the 1929 peak, over 17 times earnings at the 1937 bull market top. After all. say the bears, didn't subsequent events prove that 1929 and 1937 prices were far too high? Why then should they be considered a good yardstick by which to figure the "laggardness" of the present price-earnings ratio?

.III. How to Tell Bulls From Bears

Where inflation fears are concerned, however, the feelings of the Street's bearish elements are basically not so different from those of the bulls. And the two are close together on some other matters. Even the bears agree, for instance, that a huge amount of money now appears to be available for investment in equities and that buying recently has been of a more substantial type than is usually seen during bull-

market periods.

In fact, if you really get down to it, you will find that most of the Street's current crop of bears are really quite bullish in their long-term view of the market. The fundamental difference between the two is this: The bears firmly believe that sharply lower prices are a definite possibility some time during coming months. Accordingly, even though that thesis has proved wrong to date, they have been suggesting for sometime that holders cash in on any substantial speculative profits available to them and use the proceeds to build up buying reserves. With these reserves, they can take advantage of the

lower price levels they expect to see later on

· Handicaps-As the bears see it, the stock market will face considerable handicaps as we enter more fully into the defense economy. It will have to withstand such things as higher taxes, scarcities and actual shortages of many materials, more and more controls, and lower profit margins. And all this could have the effect of sharply reducing the appetite for stocks.

· Buying Character-The bulls, however, claim that nothing like this is going to happen unless the bottom falls out of the international situation. Recent buying by trustees (BW-Dec.16 50,p106), investment trusts, and other institutional investors, they say, has built a floor under the market. Such purchases haven't been made for shortterm profits. Instead, according to the bulls, they have gone into strong boxes. Thus, such holdings are not at all apt to be cut loose, should any flurries of "scare selling" hit the market. Instead, such periods of price weakness would be more apt to cause that group to take advantage of the occasion to pick up a few bargains.

Savings Banks Report: Insurance Sales Drop

Last year's boom in life insurance sales didn't extend to life insurance sold by the New York State mutual savings banks. Sales of new life insurance jumped about 24% in 1950 over 1949. But New York savings banks sold only about \$20.2-million of insurance in 1950, compared with 1949's \$22.5million.

That shows a reversal in the slow. steady growth of savings bank life insurance, which is sold in Massachusetts and Connecticut, as well as in New York (BW-Apr.2'49,p82).

· Risk-Some savings bank men blame the decline in sales on the restrictions which the New York banks placed on applicants who might be called into service. Instead of putting a war clause in new policies, they limited the face value of policies sold to draft-age men to \$2.500-half the legal limit.

However, this limitation may not tell the whole story. In Massachusetts, the savings banks went a step further. They put a war clause in their new policies last July. Even so, they increased their sales about 13% for the fiscal year end-

ing Oct. 31.

· Advertising vs. Agent-Another factor is that savings banks rely on advertising, rather than agents, to sell prospects. They hope to up their sales by increasing their advertising budgets, and by improving the training of office employees who handle insurance sales.

What Ford Left

Final accounting puts estate at \$80-million. Tag on motor company figures to \$466-million.

On the basis of the government's valuation of shares of the Ford Motor Co., the privately owned giant could be figured to have been worth \$466,-141,500 when Henry Ford died in April. 1947.

• Complete Count—The final accounting of the Henry Ford estate, filed last week in Detroit, showed payment of taxes based on a valuation of \$135 per share. Thus, with 3,452,900 voting and nonvoting shares outstanding, the 1947 value of the company would come to the \$466-million figure. (If the shares were in the open market, however, the two classes of stock would have different values.) Today, of course, both classes are worth more because of earnings since Ford died.

By leaving most of his estate to the Ford Foundation (BW-Oct.7'50,p30), Ford sidestepped taxes that would have run into many millions of dollars. As it turned out, taxes on stock had to be paid on only the 95,321 voting shares that Ford left to his family. The valuation on these was \$12,868,335.

Actually, this was but a small portion of the total estate, shown in the accounting as \$80,319,445. The rest was in real estate, holdings in foreign Ford affiliates, cash (\$26.4-million) and other assets. Total federal and state taxes came to \$41,114,529.

· Money-Maker-While the estate was being cleared through probate court, it proved a money-maker. The accounting showed items valued at \$100,554,-992-more than \$20-million above the 1947 valuation. Some of this increase presumably came from Ford dividends.

Five Top Executives Quit Otis & Co.

As the New Year came in, five top executives of Cyrus Eaton's Otis & Co. went out. All of them had been with the Cleveland investment house for at least 20 years.

The executives: Lyman Smith, treasurer; John Kruse, vice-president in charge of sales; Daniel Hawkins, manager of the trading department; his brother, Harvey Hawkins, long-time salesman who is a director of the corporation; and Glen Miller, top Otis authority on utilities.

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their own. The other two will take posts with other financial houses.

· Exchange Seat-The group was dissatisfied with the way Eaton, who controls Otis & Co., was running things. They had wanted Eaton to buy a seat on the Midwest Stock Exchange when it opened a little over a year ago (BW-Oct.29'49,p87), and develop a brokerage business. At present, Otis confines itself to investment banking and dealing in unlisted securities.

Apparently, the rebelling executives felt that Eaton was using the company too much for the particular financial operations that intrigued him and was not building enough general business. Another possible factor: the long squabble that Otis & Co. has been having with the National Assn. of Securities Dealers and the Securities & Exchange Commission over the collapse of the Kaiser-Frazer Corp. financing (BW-Feb.21'48,p85).

Big Insurance Buyers Set Up National Group

Companies that carry heavy amounts of fire and casualty insurance now have a national organization to look out for their interests. A group of large buyers in New York and Chicago has formed the National Insurance Buyers Assn.

NIBA already has the backing of two existing insurance-buyer groups in New York and Chicago; it hopes to gather in another half-dozen or so local organizations later on. If it succeeds, it will be the first time these groups have been able to combine on a national scale.

Backers of the scheme, which includes Ernest L. Clark of J. C. Penney Co. and Harry E. Goodell of Western Electric Co., eventually hope to sign up about 10,000 buyers.

NIBA will furnish statistics and information to members, represent the buyer's interest in dealing with insurance companies, rate-setting bureaus, and state insurance officials. Its objectives will be threefold: (1) to get simpler and more inclusive policy forms (BW-Sep.30'50,p100); (2) to secure adjustment of "inequities in rates"; and (3) to get discounts for large risks when individual loss experience is good.

Transamerica Sheds Bankamerica Holdings

Transamerica Corp. has taken another step in paring down its holdings in L. M. Giannini's Bank of America, biggest U.S. bank. Once it owned nearly all the stock of Bankamerica. But since 1937, it has been getting rid of its holdings, partly by distribution

to stockholders, partly by public sale. At the end of 1949, it held only about 11% of Bankamerica's stock.

. Stock for Stock-Last week, instead of handing out the regular 50¢ semiannual dividend, directors of Transamerica declared a stock dividend of one share of Bankamerica for every 12½ shares of Transamerica stock. That will cut Transamerica holdings of the bank's stock down to around 8%. Since Bankamerica stock is now selling around \$25\frac{2}{8}, the dividend is worth about \$2 per share to Transamerica stockholders.

The holding company has been under fire from the Federal Reserve Board for what FRB alleges is its control of Bankamerica (BW-Oct.16'48,p92). FRB has been conducting hearings on this charge.

FINANCE BRIEFS

Interest rates were hiked on prime commercial loans by several New York banks-from 21% to 21%. That means all commercial loan rates are likely to rise soon. Rates are already up in some other parts of the U.S.

More bank merger rumors: Big, branchminded Manufacturers Trust Co., New York, is said to be talking to Sterling National Bank & Trust Co. about getting together. . . . Chemical Bank & Trust Co., also of New York, is supposed to be near agreement with National Safety Bank & Trust Co.

A long-term U. S. bond at 3% or better is being urged by Thomas I. Parkinson, president of Equitable Life. He says the life insurance companies will have \$10-billion to invest this year, would put a lot of it into such a bond.

Biggest home loans ever-\$5.2-billionwere registered by savings and loan associations in 1950. The National Savings & Loan League says the total was up about 40% from 1949.

AT&T bond holders swapped a lot of their debentures for stock in 1950. About \$237-million worth were converted, plus payments of \$75-million in cash. Of the \$1.1-billion of these convertible bonds issued since World War II, only 40% remain outstanding.

No merger, please: Bates Mfg. Co. directors want stockholders to approve a 350% stock dividend to stop the merger plan talked about by Corsoli-Textile (BW-Jan.6'51,p90). dated They also want directors elected by classes, to avoid a sudden change of management.

This
Is
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For
The
Book!



Few people would expect a blasting cap plant to be one of the safest places to work. After all, blasting caps are explosive—they are designed to detonate explosives. Yet Atlas workers, on December 6, 1950, completed five years of making the blasting caps which Atlas calls Manasite without a single lost-time injury! During this period, they produced well over 250,000,000 of these detonators.

The last injury serious enough to send an employe home from work, five years ago, was a wrenched back. The one before that, a bruised ankle. In fact, no lost-time injury has been caused by an explosion in the plant since Atlas converted to Manasite blasting caps some twelve years ago.

Here is the big point. Atlas research developed a new and comparatively safe-to-handle detonator ingredient which provided a big step forward over the type of detonator compound in use for a century. Not only does it improve the safety factor in the use of explosives but it contributes to the time and cost saving methods by which the controlled force generated by explosives helps in better production methods.

MANASITE blasting caps are typical of many Atlas developments that are milestones of industrial progress—the result of Atlas work with and for the customer on the problem of holding down costs while improving production efficiency and product quality. If the things you make are in the range of Atlas activities, our technical and engineering staffs are at your service.

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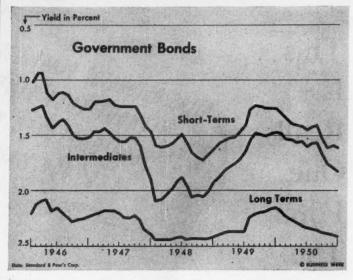
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THE MARKETS



FRB Can Still Tighten Strings

It's not likely that the Federal will increase rates on longterm governments. But central bankers feel there is still room to up the short-term rate—in spite of big Treasury financing this year.

The Federal Reserve system may still have an ace or two up its sleeve in its program of checking credit inflation by raising interest rates on government bonds.

The Federal has been raising yields on government securities by manipulating the government-bond market.

Due to the Federal's open-market operations over the past year, prices on governments have been dropping, and yields have been climbing (chart). This has an effect on all interest rates, which in a general way follow yields on government securities.

• Long-Term Rates—But now the Federal has gone about as far as it can go in tightening long-term rates. The average yield on long-term taxable governments, according to Standard & Poor's index. is around 2.41%. That's only nine basic points below 2.50%, the yield on long-term government securities at par. Since the government started expanding the federal debt rapidly during World War II, the Federal Reserve has never let the yield on long-term securities go above 2.50%. In other words, it has never let the price of government bonds drop below par.

Most people agree that the Federal will keep the long-term rate from going above 2.50% for a long time to come. It will probably go along with the Treasury to that extent, in order to facilitate financing of the mobilization program. Pegging governments at par guarantees the original buyers of these securities against taking a loss.

• Refunding—Starting in June this year and for 18 months after, the Treasury is going to have to refund a lot of maturing issues. Savings bonds will also be maturing in enormous volume during the next five years. The Treasury is going to have to borrow billions of dollars to finance mobilization. Probably a good deal of this refunding and new financing will be in the form of long-term issues.

The Treasury will want to borrow as much of this money as possible from nonbank investors. Selling government bonds to banks is inflationary. Institutions like insurance companies, trust funds, and pension funds are big buyers of long-term bonds. Any hint that bonds might break par would make new financing difficult.

• Shock Treatment—There is a possibility, of course, that the Federal might suddenly stop supporting the price of long-term securities. It has already made plain that it no longer regards par value as sacrosanet. Some

cconomists feel that if governments dropped below par, the shock would make banks tighten their loan policies. To put out new loans, they would have to sell some of their government securities to the Reserve banks at a loss, in order to create the necessary additional reserves.

However, most observers of the government-bond market agree that long-term governments wouldn't stay below par for long, even if the Federal pulled its pegs. They feel the competition for these bonds is going to increase. Banks, insurance companies, and other institutions will have to find places to invest funds that normally go into home mortgages. In their opinion, the Federal will soon find itself forced to take steps

to prevent interest rates from falling.

• Short-Term Rates—Whether or not the Federal can do anything about inflation by raising the long-term rate, many people think it can still do something to cut bank loans by raising rates on short-term securities. The Federal has already boosted short-term rates a good deal from their World War II level. Last year it proved it could raise them even over Treasury opposition.

Quite a few government-bond dealers

Quite a few government-bond dealers wonder whether the System can hike short-term rates much further without having a bad effect on the big new financings that will have to be done this year. Central bankers doubt that higher rates would hurt much. They may try out these convictions.

Profits Under the Last Defense Program

	15	240	15	141	15	142	19.	43
	Sales	Profits	Sales	Profits	Sales	Profits	Sales	Profit
Allied Chemical	\$178.1	\$20.9	\$231.2	\$21.4	\$245.T	\$20.5	\$286.7	\$19.6
Allied Stores	112.1	3.4	121.3	4.0	151.8	5.3	170.1	5.
Aluminum Co	*	28.2		24.9		17.4		26.
American Can	197.5	17.4	263.9	18.8	216.3	12.9	191.1	o13 .
American Smelting & Rfg	112.9	12.7	141.3	15.7	147.7	12.3	156.6	11.3
American Tobacco	309.3	27.7	363.5	23.3	442.2	22.3	529.4	22.5
American Woolen	76.6	3.2	145.7	6.9	196.0	4.8	197.5	5.5
Anaconda Copper	242.7	35.1	354.8	43.4	409.0	36.5	444.7	33.1
Associated Dry Goods	61.8	2.3	72.0	2.6	77.9	2.2	90.1	2
Bethlehem Steel	602.2	48.7	961.2	34.5	1,511.7	25.4	1,902.8	32.
Cannon Mills	47.5	3.8	65.2	3.1	78.9	4.6	88.8	3.
Celanese Corp	44.5	6.4	62:3	7.1	86.1	7.1	94.6	6.
Chrysler Corp	744.6	37.8	888.4	40.1	623.7	15.5	886.4	23.
Coca-Cola Co	95.8	28.9	128.2	28.9	120.7	23.3	136.7	25.
S. I. du Pont	359.1	86.9	503.4	90.4	523.5	63.9	612.9	69
General Electric	411.9	56.2	679.3	57.2	977.8	45.1	1.357.8	44:
General Foods	152.9	15.2	180.4	14.2	231.5	13.8	259.9	14.
General Motors		195.7	2,436.8	201.8	2,250.5	163.7	3.796.1	149
Simbel Bros	92.2	1.4	99.5	2.3	117.4	3.2	137.6	3,
B. F. Goodrich	145 4	6.1	211.5	8.6	238.8	9.5	374.4	11.
Grt. Atlantic & Pacific	1.115 8	18.3	1,378.1	16.7	1,471.2	11.5	1,310.8	12
Gulf Oil	273.1	22.2	337.8	33.6	349.9	23.0	431.8	20
nt'l Harvester	274.7	23.2	364.6	30.6	364.5	26.7	448.0	25
nt'l Paper	164 0	15.7	218.1	16.3	214.1	7.8	221.3	8.
nt'l Shoe	89.3	6.5	116.5	7.2	144.3	7.0	142.8	6.
ohns-Manville	61.8	5.9	92.9	6.0	108.0	5.6	107.4	4.
Coppers Co	57.1	3.0	86.8	3.7	145.3	4.5	223.7	4
Mead Corp	24.5	1.4	32.5	2.1	33.9	1.4	36.9	1.
National Biscuit	96.1	10.7	110.8	10.7	154.8	9.2	183.0	8.
National Distillers	70.9	6.7	96.8	7.1	144.2	6.9	179.6	8.
National Lead	90.7	6.1	139.2	5.4	127.7	4.2	148.6	5.
Radio Corp	68_3	9.1	92.2	10.2	127.0	9.0	219.6	10
Republic Steel	303.3	21.1	480.5	24.0	517.9	17.2	549.1	12.
Revere Copper & Brass	67.7	2.9	112.8	4.1	121.4	1.7	141.0	1.
R. J. Reynolds Tobacco	292.0	25.5	323.0	23.2	369.2	19.9	414.3	18.
Rexall Drug	90 3	1.1	102.5	2.5	122.0	2.3	138.9	2.
ears, Roebuck	617.4	37.3	704.3	36.7	915.1	33.9	867.8	33.
Sharp & Dohme	11.6	1.2	15.2	1.7	20.9	1.8	27.2	1.
Sherwin-Williams	*	4.8	*	5.6	*	5.3	*	3.
quare D Co	13.6	2.0	27.4	3.1	34.3	1.4	45.6	2.
standard Oil (N. J.)	821.7	123.9	978.4	140.6	1,039.3	83.4	1,302.8	121
wift & Co	771.6	10.8	1,019.0	16.6	1,409.4	17.0	1.490.0	17.
Thompson Products	25.2	1.7	42.5	1.7	60.9	2.1	80.1	2.
Inderwood Corp	26.3	2.2	36.5	3.7	33.3	2.2	47.6	2.
Jnion Carbide & Carbon	231.4	42.2	317.8	42.0	405.0	38.1	488.4	38.
Inited Pruit		14.9		12.4		10.4		10
J. S. Rubber	229.0	11.4	315.3	13.7	294.0	8.4	434.3	14.
J. S. Steel	.145 6	102.2	1,620.5	116.2	1,863.1	71.8	1.973.2	63.
		19.0	369 1	23.1	487.3	17.4	714.3	21.
Vestinghouse Electric	239.4	W. S W.						

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	☐ Send	your repre	sentative.	No obligation.

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LABOR



ATTORNEY GENERAL J. Howard McGrath is finally seeking . . .

Taft-Hartley Non-Red Oath Test

Federal grand jury hears evidence on labor leader who swore he had quit Communist party. If courts uphold fraud charge, decertification of some unions—and labor trouble—may follow.

Gingerly, but with resolution, the Dept. of Justice is poking into an untracked area of the national labor law. It is presenting to a Washington grand jury this week evidence of what it thinks is fraud in the execution of a non-Communist affidavit required by the Taft-Hartley act.

Some of the most ardent support for the T-H law during the debate on the measure came from people who thought "something should be done" about Communists in labor unions. The law tackles this problem by requiring that union officers swear that they are neither members of the Communist Party nor believers in communism. If officers refuse to do that, their union can't use NLRB either to secure recognition from employers or to redress unfair labor practices

• Dead Letter-Up to now, that section of the law has been a dead letter. Pro-Communist labor leaders have signed the affidavits and continued unmolested in positions of authority. Their unions used NLRB in the same way as unions in which the leadership was untinged by suspicion-and sometimes used it more effectively.

Efforts of employers, non-Communist unions, and public officials to get NLRB to take notice of affidavits which they felt were fraudulent were of no avail. NLRB passed the buck, said responsibility for "looking behind the signature" was the attorney general's, not the board's.

• Thomas Case-Then the Korean war took its ugly turn, and last month an obscure unionist named Henry Thomas appeared before a congressional com-

Thomas, as an officer of the D. C. local of AFL's Building Laborers Union, had signed a non-Communist affidavit. He told the committee he resigned his Communist party membership in order to do so. But, he said, he continued to meet with Communist leaders and to take direction from them on union

Seeing an opportunity to take the affidavit section of the law out of the dead-letter category, the Justice Dept. went to work. It went after Thomas on the charge that, from his acts, it was evident that he still "believed in communism." It is now telling the grand jury it has the facts with which to prove that charge in court.

• Small Fry—There's no doubt that Henry Thomas, president of a small local in a strongly anti-Communist union, is small fry. He is not even the kind of union chief the drafters of Taft-Hartley had in mind. But the attorney general feels he has to have a legal test before he can go after the big fish.

he can go after the big fish.

If the grand jury votes him the right to try the Thomas case, McGrath has about 100 other affidavits against which fraud has been alleged. Among them are those signed by maritime union boss Harry Bridges, and by ranking officers of the United Electrical Workers (UE); the Mine, Mill, & Smelter Workers; Office & Professional Workers; United Distributive Workers; Fur & Leather Workers; Food & Tobacco Workers; and other organizations kicked out of the CIO on Communist charges.

Wide Effects—Much more is involved in the case than prosecutions of individual union leaders accused of fraud –guilt for which carries a maximum sentence of 10 years imprisonment and a \$10,000 fine. Labor relations in a number of important U.S. industries may be violently affected.

Already pressure is building up on the attorney general to leave well enough alone. If, for example, a court should decide that some of the UE affidavits are fraudulent, what does NLRB do? It based UE's certification in General Electric and Westinghouse plants on elections held because UE officers had executed affidavits and petitioned for the polls. If the affidavits are adjudged fraudulent, must not NLRB "decertify" the union?

NLRB "decertify" the union?

• Unfair Practices—Legal opinion, hastily formulated in Washington this week, held that NLRB would have to do just that—if requested by an employer, a competing union, or any legitimately interested party. And if that proves to be the case, NLRB will hardly be able to sustain unfair labor practice findings against employers whose unions hauled them before the board after their officers fraudulently filed non-Communist oaths.

Thus grave consequences in labor relations could result from efforts to "turn back the clock." Such fears may, however, prove overdrawn. It was the same pessimistic group which believed that only chaos would result from NLRB's recognition of the jurisdictional fight between Communist and anti-Communist unions in the electrical manufacturing industry. In actual fact, the anti-Communist IUE's takeover of better than half of the industry was achieved with no serious disruption.



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THE LABOR ANGLE

THIS WEEK in Washington representatives of labor, management, and government are working their way through glittering generalities to come to grips with real problems. And as they do, the conference called by the Wage Stabilization Board (BW—Jan.6'51, p98) will approach the \$64 question. That question is, of course: How can wages be held in check while contracts calling for automatic increases remain in force?

WAGE STABILIZATION POLICY that incorporates cost-of-living adjustments and annual productivity increases will not, by itself, be a determinant of wage movements. Such a policy would provide a formula which, it might seem, can be expressed as: W (wage increases) = I (index changes in the cost of living) + A (annual productivity increment).

Like any formula, W = I + A

Like any formula, $W = I + \Lambda$ provides a method for calculation; it does not provide the figures needed for solving the equation. To be sure, the I factor will always be uncertain, even with Draconian measures to control living costs. But its ambiguities are greater even than that.

Consider the I factor more closely. It is itself the product of a sub-formula: I = C (change in index figure from base date) divided by B (the number of points change in the index which entitles employees to a 1¢ wage adjustment).

Because most of the discussion of W = I + A centers on an attack or defense of the General Motors contract that introduced the formula, the B factor in the equation gets taken for granted. This is a mistake. GM's contract with the CIO states specifically that B is to be 1.14 points. That makes it measurable, precise, and specific.

TO FIGURE A COST-OF-LIV-ING wage change at GM on any adjustment date, all that is necessary is to find out how many 1.14's the index has moved. GM's contract gives the B factor the definite weight of 1.14. But B stands for bargaining—and because it does it has no precise value except what it is given in separate contracts.

Arduous, involved collective bar-

gaining—with all that the term implies in trading, strategy, threats, and tactics—made B equal 1.14 in General Motors. In other places, it equals other amounts.

Thus, for example, the government's proposal for settling the rail dispute had B equaling 1. Hourly wages were to go up or down 1¢ with each one point change in the index. In the Allis-Chalmers wage negotiations, the company made a strong stand to have B equal 1.25. Bargaining could make a 25% difference between changes in wages provided for two groups of workers under the same master stabilization formula of W = I + A.

That formula must, therefore, be refined. It can now be put: W = C/B + A.

But we have not yet perfected it. Consider A. What arithmetic weight will it get? As with factor B, discussion of it has been argument over principle: "Is GM right or wrong in providing for an annual productivity increment?" The fact that it is 4¢ in GM gets overlooked. And it could just as easily be 2¢ or 3¢ or 5¢ or 10¢. Bargaining determined it would be 4¢. Bargaining elsewhere can make it something different.

ENCE, FACTOR A, like the divisor in our calculation for our original I, is in reality B-for bargaining. And the most truthful expression of a wage stabilization formula based on the GM model is W = C/B₁ + B₂.

model is $W = C/B_1 + B_2$. Put that way, it should be evident that a policy sanctioning cost-of-living and productivity changes is no secure stabilization policy at all. It merely sets certain rules for affecting wage changes. It puts no limit or check on what those changes will amount to.

This does not mean that a national wage policy based on GM contract principles is bad—or good. It simply means that if stabilization is to be achieved on those principles, the B's in $W=C/B+B_2$ will have to be translated into figures. And it will have to be done by some central authority. To leave it to individual bargainers meeting on individual contracts is to get the exact opposite of stabilization.



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It's no stretch of the imagination, rather, robust realism to call our past half century a Miracle – U. S. A.

America has set an amazing record of progress in 50 years - but a moment in the history of civilization. A record unequalled by any other political or economic system.

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- ★ Since 1900 we have cut 18 hours from our average work week—equivalent to two present average workdays.

How did we do it? The basic cause for this composite miracle has been the release of human energy through FREEDOM, COMPETITION and OPPORTUNITY. And one of the most important results is the fact that more people are able to enjoy the products of this free energy than in any other system the world has ever known.

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Rail Settlement Off Again

Brotherhoods turn thumbs down on Steelman's proposed peace terms. Meantime, the "nonoperating" and maintenance unions are asking for more pay, guaranteed employment.

The railroad wage baby is back on the White House doorstep.

This week, railroad operating unions flatly rejected John Steelman's proposed wage and work-rule settlement of the 22-month-old dispute. The brother-hoods claimed that the White House adviser hadn't worked out a "realistic or fair" adjustment.

 More Trouble—Other labor problems in the once-peaceful industry are coming to a head:

• Officers of 15 "nonoperating" railroad unions began bargaining with the carriers. The unions want a 25¢ hourly raise, retroactive to Nov. 21, 1950. They claim that the roads can well afford that because profits are trending up.

trending up.

• The Brotherhood of Maintenance of Way Employees opened negotiations, demanding guaranteed employment and earnings. It's asking for:
(1) stabilized employment, to end "extreme fluctuations" in jobs due to seasonal influences or work scheduling;
(2) a guarantee that regular employees will get a certain number of weeks' work every year; and (3) a plan to secure a fixed ratio of maintenance workers to total railroad employment—to halt the decline in roadworkers' jobs.

 Action—The new negotiations are no immediate threat to labor peace. If bargaining should bog down, the disputes would have to go all the way through the now-shaky procedures of the Railway Labor Act—including factfinding. Meanwhile, the government is still in possession of the roads.

On the other hand, the four-union veto of White House proposals could mean a railroad tie-up. The unions-locomotive engineers, railroad trainmen, locomotive firemen and enginemen, and conductors—have already been through the prescribed Railway Labor Act steps. They turned down the original fact-finding recommendations; then, they turned down Steelman's substitutes.

• Not Enough—Steelman's plan offered: 25¢ raises for yardmen, and 10¢ for roadmen; approval "in principle" of the 40-hour week (it wouldn't be put into effect until 1952, if then); an escalator clause gearing pay to the cost of living; various rule revisions; and a three-year moratorium on union wage and rule demands (BW—Dec.30'50, p64). But the unions aren't satisfied.

They object, in particular, to the moratorium, to the delay in putting the 40-hour week in effect, and to the

White House plan to refer "unacceptable" work-rules to Steelman for settlement. In what added up to a no-confidence vote for Steelman, the brotherhoods said that work-rule disputes can't be entrusted to anyone not "deeply versed in the traditions and practical operations of a railroad."

The unions also are sticking to their original wage demand: 40 hours' work for 48 hours' pay. That's a 35¢ raise.

LABOR BRIEFS

Greater output is pledged by CIO's rubber workers in return for a contract with Rapid Roller Co. giving them 55 hr. of pay for 40 hr. of work. The union agrees the company can use new machinery and methods to cut work hours from a previous, guaranteed 50-hr. work week.

A "right-to-work" law which would ban making union membership a condition of employment is being sought in the Nevada legislature.

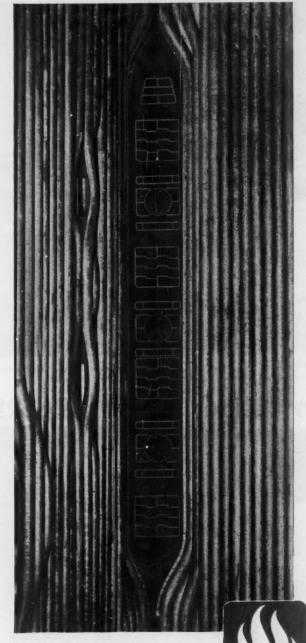
Canadian unions now report 1,005,639 members. It's the first time they have topped the million mark.

No c-of-l clause is left in the new contract between Hershey Chocolate Corp. and AFL. One was discarded in favor of an immediate 7¢ raise, 5¢ more next year.

The third raise since June 5, 1950, gave York Corp. employees a total increase in six months of 11.9%-13¢ to 16½¢ an hour.

A forced retirement fight has been dropped by General Electric. It won't appeal a court order barring it from making 26 employees retire at 65. GE has no compulsory retirement clause in its contract with the International Assn. of Machinists.

The Pictures—Cover by Dick Wolters. Acme-23, 27 (rt.); Black Star-105; Clark Dean-96 (bot.), 97, 98 (top); Harris & Ewing-90; Int. News-32 (top lt.); Bob Isear-24, 25, 96 (top), 98 (bot.); Wide World-27 (lt.); Dick Wolters-50.



a carburetor— 12 feet high

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In the C-E Tilting Burners, as the name implies, the burner nozzles actually move up or down to raise or lower the flame body in the furnace. This, in turn, regulates the temperature of the gases flowing over the superheater and thus permits control of steam temperature over a wide range of output.

The C-E Tilting Burner has long since achieved the status of a major advance in power station practice. In fact, so well has this design met the exacting temperature requirements of modern turbines that C-E Steam Generating Units equipped with Tilting Burners have been purchased since the war to serve an aggregate of more than 10 million kilowatts of new electric generating capacity.

While the C-E Tilting Burner is applicable only to large power station boilers, it is typical of many major advances in the fields of fuel burning and steam generation developed by Combustion Engineering—Superheater. Collectively, these developments mean top standards of economy and reliability in all steam generating units — large or small — that bear the C-E nameplate.

B-452

Corner view of boiler furnace showing a C-E Tilting Tangential Burner. Flame streams from burners in each corner of the furnace impinge upon one another creating the intense turbulence required for maximum combustion efficiency. Pulverized coal, oil or gas may be used singly or in combinations.

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MORALE WORK in the union hall came first; teaching union songs and doing other recreational work helped her get acquainted with the union's members.



PICKET DUTY came next. The trainee pitched in to keep the line moving and spirited outside a struck garment shop. Then came a change of job, to . . .



IN THE FIELD A hotel room strike conference provides breakfast, a briefing on the strike situation, and a heavy set of assignments.

and Strikes

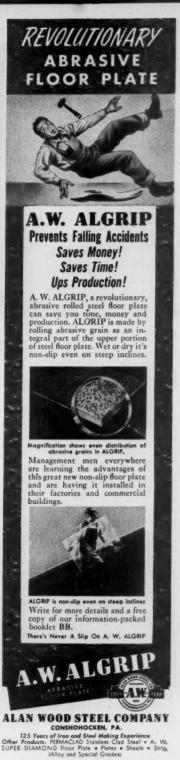
STORY ON PAGE 98



ORGANIZING The trainee went to nonunion homes to explain ILGWU aims; then she sampled . . .



POLITICAL WORK writing handouts for endorsed candidates. (TURN TO PAGE 98)



BUSINESS WEEK . Jan. 13, 1951



A FINAL CONFERENCE on Helen Becker's field work, held with Massachusetts union leaders, wound up a three-month assignment to get practical labor experience. Then . . .



HEADING HOME, the trained ticks off on her fingers things to remember in her...

How to Become a Labor Leader

It takes more than hard fists, a bellowing voice, and tough stubbornness to be a union leader these days. Unions have come of age, and labor is as choosy as management in its selection of future leaders.

Take the International Ladies' Garment Workers Union (AFL). It wants its future leaders to have brains and native shrewdness; sound knowledge of economics, labor law, and union administration; ability to deal diplomatically—and successfully—with employers, the government, and the public.

 Pioneer—That's the reason back of ILGWU's ambitious Training Institute, now rounding out its first year in New York. Through it, the union hopes to develop strong staff members and future officers. The first group of graduates will enter union service on May 1.

• Case History—Helen Becker, 23, of Brooklyn, is a member of the initial class of 29 men and four girls. After she got her B.A. in sociology, she put in three years as a social worker. During that time she got interested in union work.

 Curriculum—ILGWU's new one-year course combines classwork and lectures with field activities—divided almost 50-50.

Classroom studies cover such things as: economic theory and comparative economics; labor law and contract law; how garments are made; how garment pay rates are fixed (BW-Sep.9'50, pl16); how to prepare a radio script, run a motion-picture projector, and use visual materials; how to run a meeting and give a speech; how to present union arguments, organize workers, and handle grievances; and how to use labor's new political-action techniques.

The field work rounds out the classroom program. Helen Becker's last assignment was to do an all-around union job in Massachusetts (pictures, page 96). She helped run a strike, did morale work in the union hall, went into workers' homes to get new members for ILGWU, and did political campaign work.

Other trainees had similar assignments elsewhere in the U. S. One spent part of his field period in a Tennessee jail for strike activities. The others reported back to the institute with more routine experiences.

ILGWU's president, David Dubinsky, told the trainees that everything they had done had been important their field experiences had been "a practical training for effective participation in union activities."

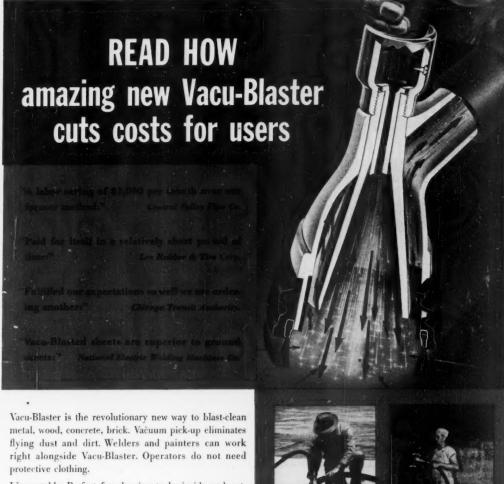
• Farther Than Most-ILGWU's institute goes farther than most union training programs. And it isn't limited to union members or their high-schoolgraduate children. The union accepts



REPORT TO CLASS on field experiences—with "mike" training included.

anyone, 21 to 35, who's interested in a career in the labor movement.

A more widely used training procedure in other unions is the assignment of promising union members to summer training conferences or schools—usually held with the cooperation of colleges or universities.



It's portable. Perfect for cleaning tanks inside and out. Leaves no mess. Used on ships and other vehicles to remove paint and rust. Brewers use it for cleaning vats. Shippers use it for cleaning inside tank cars. Pipe and steel drum makers use it for edge-cleaning sheets prior to welding. Food processors use it for cleaning floors, walls and ceilings. It can be adapted to blast-clean a thin strip or an entire surface on production line or elsewhere.

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CONDUCTED BY:

The Advertising Research Foundation, sponsored jointly by the American Association of Advertising Agencies, and the Association of National Advertisers.

METHOD:

A comprehensive, nation-wide, sample of Business Week's audience selected in accordance with the rigid formula prescribed by the Foundation's technical committee. These readers were subjected to intensive personal interviews. Issue selected by the Advertising Research Foundation for study was that of April 22, 1950.

NOW AVAILABLE:

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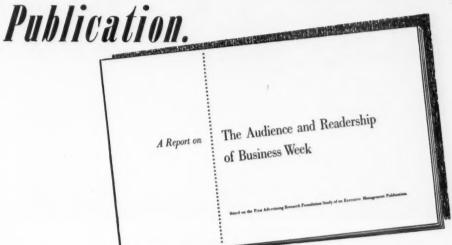
ITEMS COVERED

Here are some of the major items covered in the Advertising Research Foundation study of Business Week's issue of April 22nd, 1950.

- Number of potential and qualified readers.
- How many readers receive their copies by office subscription, home subscription, route-list or pass-along.
- Number of issues usually read per year.
- · Where Business Week is read.

- Proportion of readers noting each editorial and advertising page in the issue surveyed.
- Best read editorial items in the April 22nd, 1950 issue,
- Best read advertisements in the April 22nd, 1950 issue.

AUTHORITATIVE FACTS and Readership of an Executive



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- 80% of subscribers reported reading 40 or more issues per year.
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INTERNATIONAL OUTLOOK

BUSINESS WEEK JANUARY 13, 1951



The French came through for Eisenhower this week. They promised a stepped-up rearmament program.

Paris now plans to build a modern 20-division army in two years instead of three. Also, France will send two new divisions to West Germany soon.

But Paris says it will need plenty of U.S. equipment—especially tanks and armored cars. French military production won't really get under way until the end of this year.

Eisenhower ducked this question from the French: How many divisions will the U. S. send to Europe?

He couldn't answer that one, the general said, until he had decided whether Western Europe is defensible.

But French officials got this impression: If Eisenhower decides Europe can be defended, he will urge Washington to send three to five U.S. divisions as soon as they can be raised.

London, like Washington, still is betting against war in Europe this year. But British diplomats think the odds for peace are dropping.

London is putting some stock in this theory: Whether or not to start a big war now hangs in the balance in the Kremlin. A pro-war minority in the Politburo is trying to get Stalin to launch a "preventive" campaign over West German rearmament. This group knows that the specter of a rearmed Germany is one thing sure to rouse popular support in Russia for war.

British officials doubt, though, that Stalin has made up his minć yet. They figure it's worth holding a Big Four conference to find out.

The Commonwealth talks in London have raised British hopes that India and Pakistan may soon join the Western defense camp.

Prime Minister Nehru's neutrality is on the wane. Opposition to his position is gaining ground in India, especially in his own party. And that's gradually pushing him off the fence.

But Nehru still isn't ready to break with Communist China. That's one reason why London wants to delay United Nations' action branding Peiping an aggressor.

London figures India also needs nursing of another kind—British and U.S. aid against famine.

Floods, drought, and the disastrous earthquake in Assam have upped India's need for imported grain to 6-million tons this year. It's not likely that New Delhi will be able to pay for more than half of this.

The British Treasury is ready to let India use some of London's gold reserves for dollar grain. But London is counting on help from the U.S. Treasury, too.

The State Dept. already is working on a \$150-million food fund for India.

State hasn't sounded Congress out on this request yet. A fight seems certain, because of India's attitude on Korea.

But Congress may be impressed by the thought of Russia stepping in with a grain offer. Also, things will be eased if the Administration can finance food for India with leftover ECA funds.

INTERNATIONAL OUTLOOK (Continued)

BUSINESS WEEK

The Japanese are openly campaigning to get Formosa back.

They claim that if the island is left to them: (1) Red China can't complain that the U.S. Seventh Fleet has taken over Formosa; (2) Japanese industry will keep an important source of raw materials.

As for Chiang Kai-shek, the Japanese say he will see the wisdom of the move—providing he can keep his army intact.

Washington may be tempted by this line. The State Dept. doesn't know what to do with the troublesome island.

Technically, Formosa is still Japanese territory. True, at Cairo during the war, the U.S. and Britain agreed to end Japan's 55-year rule over Formosa and return it to China. But the U.S. has just about scrapped the Cairo declaration by now.

Official policy today is to leave Formosa's status up to (1) the United Nations, or (2) a Big Four peace treaty with Japan.

Since no decision seems likely via either of these routes, the situation will probably stay as is—muddy.

The Administration may not ask Congress to drop the 2¢ copper tariff—at least not right away.

In the last Congress, Western senators got the levy on copper back in force. They blocked renewal of the exemption which had been in effect since 1946.

Now copper prices have soared to the point where the tariff has little or no effect on supplies. So the Administration may let the matter slide. It doesn't want to revive the issue in a year when the whole reciprocal trade program is up for renewal.

The most ambitious private U. S. development program folded up last week: The government of Iran and Overseas Consultants, Inc., agreed to break their contract.

OCI (representing 11 top U. S. engineering firms) foundered on the shoals of Iranian politics (BW-Oct.23'50,p130). The American group was called in to supervise Iran's seven-year development program. But it lacked authority to keep funds from being used for all sorts of political adventures.

Development aid to Iran is now being handled through the State Dept. The money comes via Point 4 and the Export-Import Bank.

Indonesia and Holland face a serious crisis over Dutch New Guinea.

Both claim control over this oil-producing colony that lies just north of Australia.

The Indonesians threaten to scrap the whole Netherlands-Indonesian union if they don't get the territory. The Dutch are ready to pay almost any price to hold their position.

The New Guinea issue has brought widespread violence throughout Indonesia.

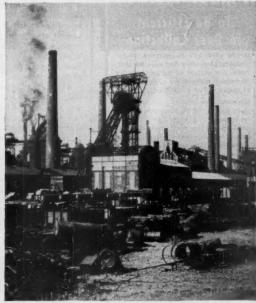
Dutch, British, and U. S. business interests report organized attacks on foreign-owned rubber plantations, tin mines, sugar and tobacco growers.

London's gold reserves are now \$3.3-billion, up \$544-million during the last quarter of 1950.

Most of the increase—\$398-million—came from actual earnings of the sterling area. The rest was Marshall Plan money (BW-Dec.23'50,p69).

BUSINESS ABROAD





VICTORIOUS RED CHINA is cut off from Western sources. WEST GERMAN INDUSTRY is obvious source to fill the gap.

To Keep China, Stalin Needs Germany

Asia looks like Soviet's chief military target in 1951. But control of West Germany will be goal of its big propaganda drive.

Asia, not Europe, will be the target of Communist military conquest again this year-according to most diplomats in Washington, London, and Paris. But Western policy makers will still have to worry plenty about Europe. There's growing evidence that one of Stalin's chief objectives for 1951 will be to push the East-West struggle for political control of West Germany toward a climax.

It looks like a military push in Asia, plus an intense propaganda drive in Germany.

· Closely Linked-There's a close tiein between the two drives. Even the Chinese Reds say that victory for world communism must be won in Europe. When Peiping says this, it is thinking as much of the economic as the strategic advantages of Communist control in Western Europe.

For several months now Peiping's propaganda has stressed this point: Germany will soon be in the Soviet camp. That means that China, despite its break with the West, will get the industrial products it needs. This is a basic shift in the Peiping line. Before

Korea, Mao Tse-tung had said there would be a long period of peaceful trade relations with the West before world communism launched a direct assault on capitalism. Now, it's obvious that the conquest of Germany has replaced Mao's idea of peaceful trade with the U.S. and Britain.

From Staltn's angle, the very success of the Chinese Reds poses a problem: how to control Communist China for a long period without a substitute for industrial imports and investments from the West. Stalin knows from experience how strong the pressures are for fast industrialization in a backward Communist country. And he knows that Soviet Russia is in no position to meet China's economic needs.

If he could get control of Western Europe's production, he would have an answer.

• Not War-Open aggression on the Korean model is not too likely in Germany this year-unless Stalin has decided on all-out war. Even with the support of Polish and Czech "volunteers," an invasion of Bonn by the Eastern People's Police wouldn't get

far against the Allied armies now in Germany.

· German-Russian Ties-Probably Moscow will rely instead on the political maneuvering of the East German Communist regime, plus a group of former Nazis and German army officers. These two groups have a common aim-the unification of Germany under Russian control

It's the former Nazis who have the job of penetrating the Western zones. There, they can count on the support of many thousands of disgruntled Nazis and a few army generals. Horst Dressel-Anders, former assistant to Goebbels, is one of their key figures. These men have established connections with the secret "Brotherhood of Former German Army Officers" in West Germany. Their aim is twofold: first, to sabotage plans for raising a West German army; second, to prepare underground support for an eventual invasion from the

Moscow has another link with West Germany-West German industrialists who look to the East for big markets. In 1950 the legal trade between East and West Germany went up 300% over the 1949 figure. But this legal trade is probably small compared with the illegal traffic between the Ruhr and

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the Soviet zone. This traffic includes steel and machinery of all sorts for the East Germany Five-Year Plan.

• Propaganda Push—Moscow is spending more money in West Germany now than at any time since 1945. An endless stream of propaganda material reaches the Western zones through secret channels. Thousands of full-time agents operate among all classes of the population.

The latest slogan of the Russian underground network is "Unity and peace—or division and war." This slogan has come on the heels of an official East German decision to hand down a death penalty for any West German who supports rearmament. Many ordinary German citizens figure it this way: "If I keep in with the Communists and the democracies win, nothing will happen to me. But the other way round, and I may be hung."

The Russian psychological offensive in West Germany boils down to this: Through blackmail and fear propaganda, turn public opinion against rearmament, and thus involve the Bonn government in endless negotiations with the Western powers. If necessary, threaten invasion to undermine agreements between Bonn and the West.

• Results—This offensive has already paid dividends. Opposition to rearmament has grown by leaps and bounds in West Germany recently. Many West Germans now want to try for a deal with the Communist regime in East Germany. They think unity would guarantee neutrality in a world war. Others want to wait for the results of the proposed Big Four talks before deciding on building a German army.

Early this month it looked as if popular opinion would force Chancellor Adenauer to postpone rearmament talks with the U.S., Britain, and France until he had replied to the East German bid for a unity conference. But Adenauer has gone right ahead with the rearmament discussions. What's more, he is preparing a stiff answer to the East German Communists. For one thing, he will scoff at the idea of negotiating on East German terms-equal representation for both parts when the West has 45-million to 50-million people compared with the East's 18-Adenauer will restate the million. West's conditions for unification-free elections and the right of every political party to campaign anywhere in Germany.

• German Worries—As for the Big Four meeting, West German leaders

Four meeting, West German leaders are chiefly worried that the West will sell them short in the interests of relieving world tension. Neither Adenauer nor Kurt Schumacher, Social Democratic leader, believes that a neutral Germany is possible. But neither has yet been willing to stop jockeying for political position and give the kind of

leadership needed to counter Soviet propaganda.

Schumacher, in fact, recently led a successful political campaign in two West German states against the U.S. plan for including West German troops in the Atlantic Defense Forces. He felt that the plan put West Germany in the position of an inferior. It was this Social Democratic opposition, as much as anything else, that has slowed down the U.S. timetable on German rearmament:

• Allies' Answer—But the Western allies have three cards to play that will answer Schumacher's chief objections:
(1) the joint agreement of the U.S., Britain, and France to restore German sovereignty to the Bonn government;
(2) private assurances to the Germans that the allies will reconsider their decision to limit German troops to 6,000-man combat teams; (3) actual steps to build up Western European defense forces under Eisenhower. Even token additions to U.S., British, and French strength inside Germany would make a big difference at Bonn.

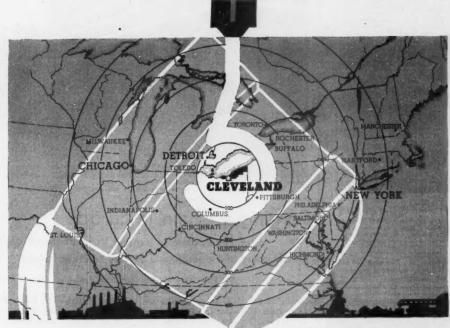
Best Guarantee—U. S. economic policy in West Germany still stands as the best guarantee to keep neutrality from sweeping the country.

With the aid of the Marshall Plan, West Germany is back on its feet economically. By contrast, East Germany is almost an economic desert. Moscow has squeezed better than \$2-billion a vear out of its zone, while in two and a half years the U.S., through ECA, has put more than \$1-billion into the three Western zones. And while Moscow is integrating the economy of East Germany into the Soviet empire, West Germany has become almost completely independent economically.

• Defense Costs—The one big economic problem now dividing Bonn and the Western allies is the question of defense costs. The allies know that Bonn has a heavy financial load to carry. But they insist that when the republic takes over its own sovereignty, it must not only carry its own defense expenses, but help to pay the costs of larger allied armies. As the allies see it, West Germany should spend at least 10% of its national income on defense. The Germans reply that this would require higher taxation, undermine the capital investment policy they are trying to carry out.

However this problem is settled, it seems certain that allied defense armies in Germany will have to cut their costs and live a less plush life. Allied occupation troops have been consuming about 80% as much electricity as 8-million German farmers use, and have taken close to 50% of German automobile exports. If Germany is to rearm, there will be more austerity for both defense troops and the German people.

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Forging a Chain in Europe

Hilton Hotels plans to expand its international operations by designing and operating U.S.-type hotels in Europe.

Conrad Hilton-"The Man Who Bought the Waldorf"-has been making history in the U.S. hotel business for a long time (BW-Oct.22'49,p82). Now he's training his sights on Europe-and other distant spots.

Hilton has already gone international. Last month he ended a year's successful operation of the Caribe Hilton in Puerto Rico. Now he aims to teach European innkeepers the Hilton secrets of big hotel management—and to make some money for his stockholders, too. The plan:

Hilton will lease and operate a 400-room, \$6-million hotel to be built in Rome during the next two years;

 Do the same in Istanbul, Turkey, where a 300-room, \$5-million hotel is slated to be running by 1953;

Conclude similar deals elsewhere.
 London, Athens, Mexico, and Cuba are likely sites.

 Mastermind—Hilton Hotels International, Inc., wholly-owned subsidiary of Hilton Hotels Corp., will mastermind the new ventures. Here's how they'll work:

The hotels will be built and owned by local capital—in Italy by a private firm, in Turkey by the government. Skidmore, Owings, & Merrill, New York architects, will do the designing. Hilton experience will guide construction, train staffs, handle promotion. Finally, the chain will step in with working capital and take over operating chores. Hilton's take: one-third of the

gross operating profit-with no owner-ship risks.

• Same Pattern—The Rome and Istanbul arrangements follow along the pattern of Hilton's operations in Puerto Rico. Just a year ago, Hilton and the Puerto Rican government opened the swank Caribe Hilton in San Juan.

The Caribe was Hilton International's first experience with foreign development capital and foreign labor problems. Puerto Rico's Industrial Development Co., a government agency, approached Hilton with the idea of building an up-to-date hotel that could boost tourist trade, provide jobs, give the island the prestige of a first-class stopping-place. The agency offered Hilton tax concessions, promised to put up the "world's finest" hotel.

Hilton took the job-but it wasn't easy. There were plenty of wrinkles to iron out. Local workmen—for one-took slowly to waiting on tables, fell all over themselves and the guests at first. But Hilton stuck with the native help, and now feels it has welded a fast-cracking hotel staff. The Caribe is solidly in the black.

• Expansion—Rome won't offer much trouble, Hilton people believe. Despite the number of good, well-staffed Italian hotels, the country needs many more—and better—tourist facilities.

Turkey is something else again. Istanbul's Hilton hotel is to be the nucleus of a modern hotel industry in the country. Right now, the Turks have only

small hotels, and the service is generally below par. Hilton is starting right from scratch—training help, interesting able young Turks in the hotel business, drumming up the wagon-lit trade. Hilton says that a good hotel is the base for a tourist boom, benefiting everything from local shops to airlines and buses.

The Turkish government is all for it. They've always felt out of the tourist mainstream, but figure that a good hotel bearing a familiar name will give the country a big boost. Hilton officials agree, saying there's a "heek of a big world out around Turkey for travelers

to discover."

• At Home Abroad—Hilton has done a lot of hard thinking about the chances for a U. S.-style hotel plunked down in a Europe already brimful of hotels. Hilton believes, though, that most traveling Americans (aside from junketing college boys) and many Europeans like to take their local color in easy doses. They're timid about wandering around foreign cities without a familiar base of operations. Hilton aims to supply that base—with all the comforts of the Plaza or Waldorf-Astoria.

Of course, Hilton International is worried about war. But Conrad Hilton has the idea that he must prepare for peace at the same time he's battening down the hatches. And Turkey-smack along the Iron Curtain between East and West-is a good place to start work-

New Code Cuts Red Tape On Trade and Exchange

Foreign traders may soon find it easier to untangle the trade and exchange controls that tie up most international business.

There's a brand new code of standard practices for governments to follow on their trade and exchange controls. It was hammered out last month at a 29-nation session of the signers of the

Geneva Agreement on Tariffs & Trade (GATT) at Torquay, England.

• Basis for Bargaining—The code starts working immediately. But like all GATT resolutions, it isn't binding on the members. Its effectiveness will be measured over a period of time, as the member countries use the code as a bargaining point at future GATT meetings. For example, one country tells another: "You didn't live up to the code at this point, so why should we make a concession to you on this point?"

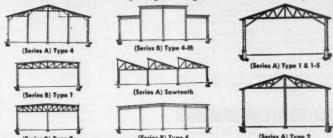
• Coverage-Here's how the new rules stack up:

• Rule One would guarantee an importer the necessary foreign exchange to finance a purchase for which he already has an import license. All too

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BUSINESS WEEK Classified Advertising Division 330 W. 42nd St.—New York 18, N. Y. often, European importers are out on a limb: They have the necessary import license but none of the right kind of

money to buy, particularly in the U.S.

• Rules Two and Three would exempt all goods in transit and, in some cases, those on order from new or suddenly revised import restrictions.

· Rule Four stresses prompt processing of import and export licenses and exchange permits. They should remain in force long enough to allow for production and delivery of goods.

· Rule Five would commit governments setting up import quotas to give all importers plenty of time to apply for licenses, and set contracts with the ex-

porters. · Rule Six makes sure that reliable newcomers get a crack at the quotas, along with the old established im-

porters.

The U.S. already lives up to this code; so does Britain. Offenders are mainly continental European countries and others who are slow to put administrative measures into effect.



Belgians Boost Blankets

The Belgians are taking a leaf from the American promotion book to sell exports to the U.S. In three Pacific Coast cities-Los Angeles, San Francisco, and Seattle-Belgians have ballyhooed the opening of permanent displays of blankets, crystal, shotguns, and other made-in-Belgium consumer goods.

Above, a skeptical visitor (right) listens to a Belgian's sales pitch for the Sole Mio blanket. Three times as thick, but as light as most other wool blankets, the Sole Mio is priced for competition with U.S. blankets. Packaging touch: Before the blankets are sealed in cellophane, they get a small squirt of lavender perfume.

BUSINESS ABROAD BRIEFS

Israel plans to float a \$500-million bond issue in the U.S. over the next three years, with sales starting by May 1. It's part of Israel's three-year, \$1.5-billion economic development program.

Good neighbor: The Brazilian Navy says it will build a major shipyard near Florianopolis, in southern Brazil. It's supposed to be large enough to handle 35,000-ton ships. Right now, Brazil has one active 19,000-ton "battleship."

Famine help: An American Emergency Food Committee for India has been set up to push India's request for 2-million tons of grains from the U.S. (BW—Dec. 30'50, p76).

Canada's second atomic pile is planned for Chalk River, Ont. Canadians say it will be "many times more powerful" than the present Chalk River pile, will cost \$30-million, be completed sometime next year.

Business as usual? The Russians say they're willing to reopen negotiations on the \$11-million they owe the U.S. for World War II lend-lease.

No business as usual. The Chase Bank, overseas arm of the Chase National Bank, has shut up shop in Hong Kong. Reason: Chase has hardly any business there now that the U.S. has clamped down on transactions with Red China and its nationals.

Saks Fifth Ave. will operate a specialty shop aboard the American Export Lines' S. S. Independence, on its maiden voyage next month (BW-Jun.10'50,p24). Saks plans partially to stock the store with goods picked up at ports-of-call. Helena Rubinstein and Brentano's will be aboard, too.

Eastman Kodak has moved its European and overseas organization from London back to Rochester. Reasons: "changing world conditions," and "closer coordination of world sales and service."

Wyeth, Inc., Philadelphia pharmaceutical house, has a new subsidiary in Caracas, Venezuela. Wyeth reports "greatly expanded" business in Latin America.

Antidump duties will hit British cars in Canada on May 31. The duties were waived two years ago to help British exports. It helped: Last year Britain sold 50,000 cars in Canada, and auto men there are hollering for the duties.

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The Cutting Edge of Our Economic Power

At a meeting of the Big Three in Teheran in 1943, Joseph Stalin said that without U.S. production the war would have been lost. He probably remembers now what he said then. At least, such a view seems to fit with his policy of conquest by stealth and by satellite without, so far at least, making open war on us.

Once again our productive system is being mobilized. So far there has been much emphasis-some of it necessary-on cutbacks and diversion. The idea of meeting war demands through more production has played a poor second fiddle. It is time to get that basic approach to the task back into our sights. A good place to begin

is at the beginning-with machine tools.

Consider this matter in relation to the critical metalworking industries, the foundation of any defense program. The plane, tank, antiaircraft gun are all machines. Aircraft carriers and submarines are really enormous collections of machines. This was reflected in World War II when half of all our manufacturing output was accounted for by the metal-working industries as against only a third before the war. When defense spending hits a \$50-billion clip by the end of 1951, \$30-billion will go for military hardware provided by these industries.

Now the heart of metal working is the machine tool: It takes machine tools to make machines. Clearly it is top priority business to utilize all existing machine tools and our machine-tool industry to the full: (1) to speed output of defense goods; and (2) to improve the productivity of industries providing civilian needs.

From World War II, as the magazine American Machinist has pointed out, we still have an inventory of about 60,000 machine tools held by the government in the National Defense Reserve. Despite the problems of obsolescence and despite poor maintenance by the armed services, many of these tools are usable—at least as stopgap equipment until new and better ones are available. The Defense Dept. policy of asking contractors-not always with success-to get needed tools out of the National Defense Reserve, if possible, should be vigorously pursued.

The real solution to the problem, of course, lies in stepped-up production of new machine tools. Builders are moving rapidly to expand their output. Ever since Korea exploded, orders for civilian purposes have been very active. New orders in November made it the second best month since the days of World War II. Defense orders so far have been small, reflecting the slow tempo of Washington's mobilization effort until this month. British defense orders for machine tools placed here to

date exceed our own.

But despite the orders and the additional recruitment and training of workers, the machine-tool industry badly needs materials and component parts. It needs copper, steel, bearings, castings, motors, and controls. It will not be able to get them without help from the mobilization authorities. An industry, such as machine tools, which uses only two-tenths of one percent of total steel tonnage, for example, is not apt to get much attention standing in line with the big customers of steel.

It is essential that mobilizers Wilson and Harrison recognize the importance of this small use of critical resources. Every machine tool put to work adds to our productive strength. It helps turn out more goods. It saves manpower. Machine tools are the cutting edge of our economic power. A green light for the machinetool industry is a vital requisite for winning the production race with the Soviet Union.

Vulcan Builds New Forges

Last spring the land along the Delaware River in Bucks County, Pa., was green with the promise of produce for Philadelphia dinner tables. In 1952 the crop there, as well as farther south across the river, will be raw steel, sheets, rods, and tin-mill products. The new Fairless plant of U.S. Steel and the new plant of National Steel, both rising there, will increase American steel capacity by nearly 3-million tons.

Those who like their landscapes green may mourn the shift. But the move marks changes so fundamental that objections shrivel. The rich Mesabi ore which built modern America is giving out. The country's new dependence on imported ore calls for tidewater mills. And the change to f.o.b. mill pricing makes it necessary for steel plants to snuggle close to their markets.

All these circumstances have worked themselves out along the Delaware where vegetable growing is giving way to steel processing. The change makes America stronger for peace, as well as for war.

50-Million Women

Rosie the Riveter is back in the newspaper cartoons, and not only for fun. She represents the biggest single pool of reserve skill into which industry can dip to fill the present shortage of hand power.

The men are, most of them, at work. Of the 54.5million males over 14 in the country, only 10.5-million are still outside the counted labor force. A few young ones can be given working papers, a few old ones can be called back, but the total male reserve is small.

Women, on the other hand, are statistically a "leisure" class. The country has 56.6-million of them, more than it has men, and of these, 37.6-million remain outside the labor force.

Even if children and grandmothers are subtracted, this is a sizable pool. All of it is not, however, usable without doing damage. A real question is how many women can be enlisted for industry without doing damage to marriage, husbands, children, and home fires.

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